

Method and system for managing resources using geographic location information within a network management framework

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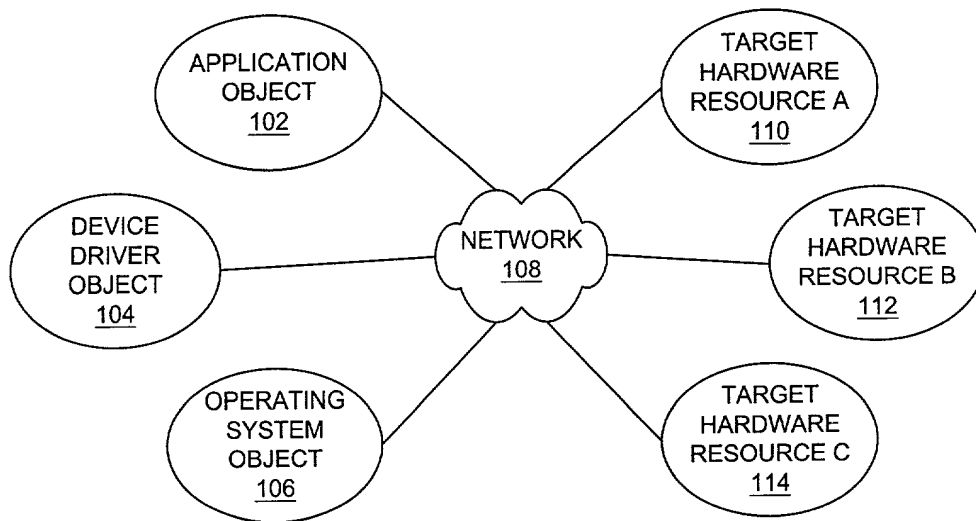


FIG. 1  
(PRIOR ART)

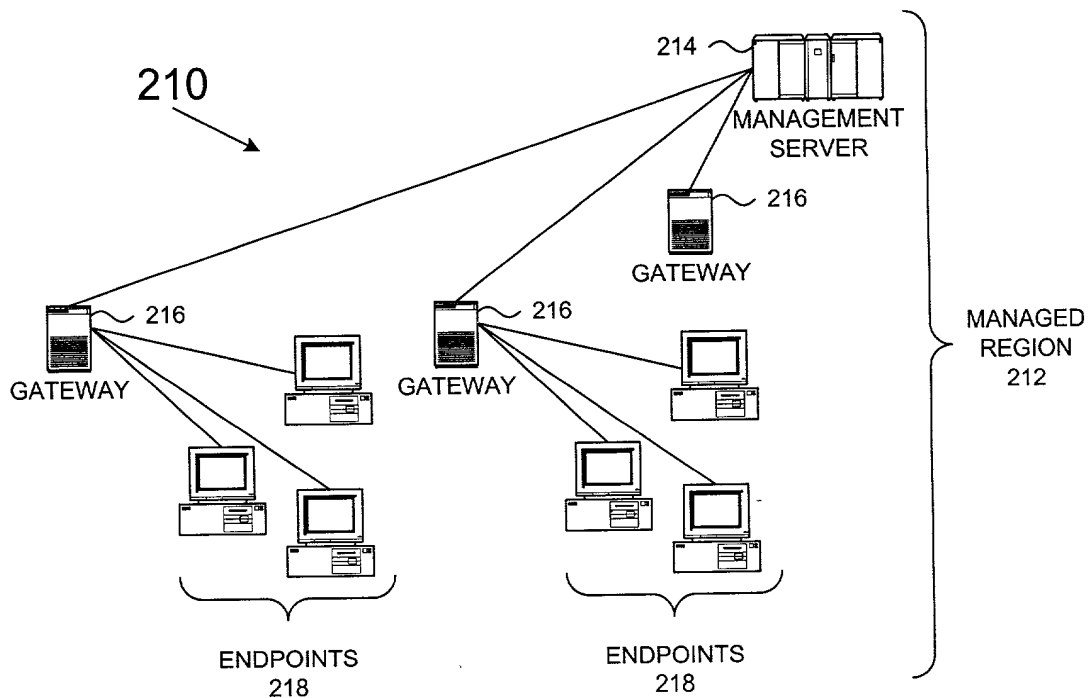


FIG. 2A

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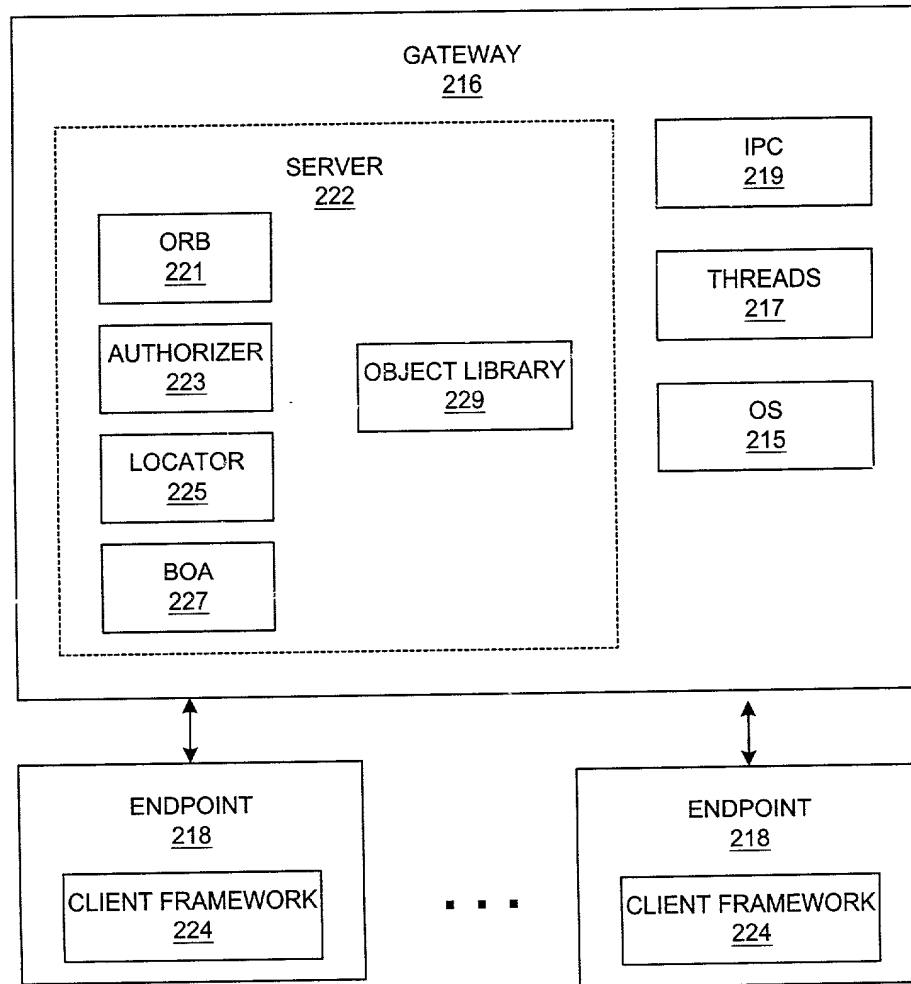


FIG. 2B

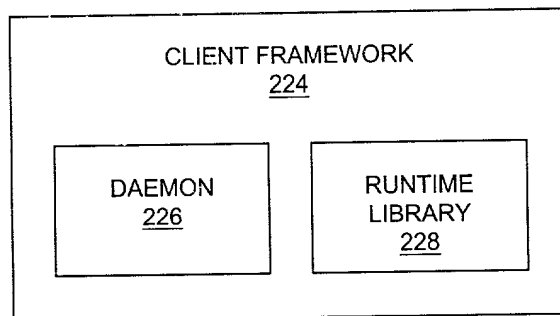


FIG. 2C

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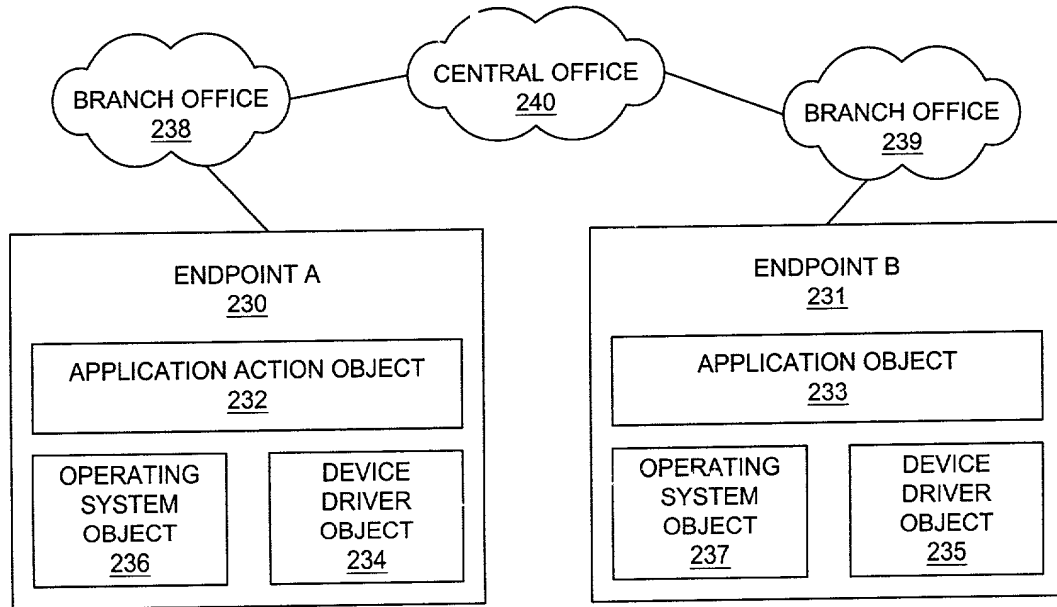


FIG. 2D

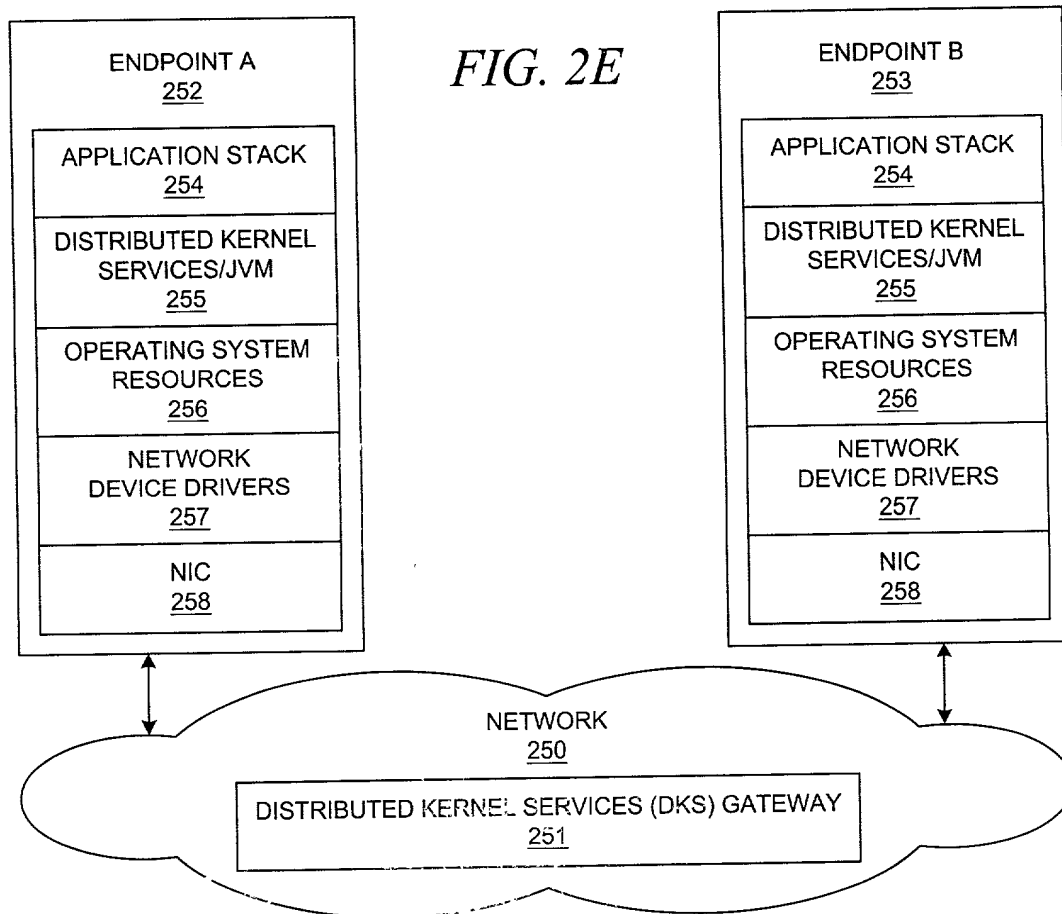


FIG. 2E

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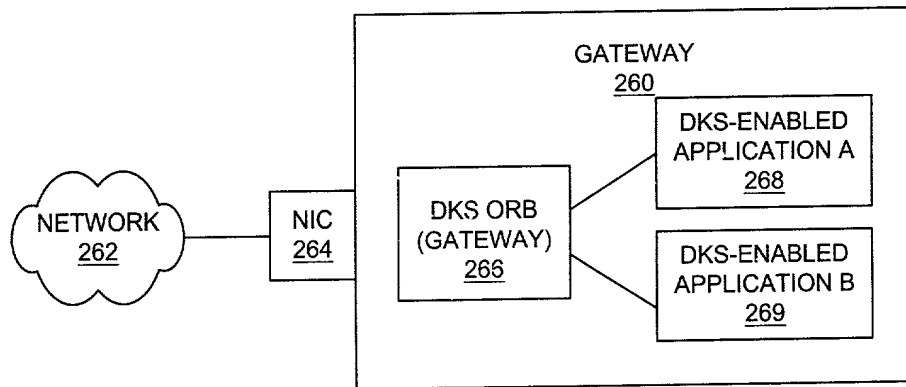


FIG. 2F

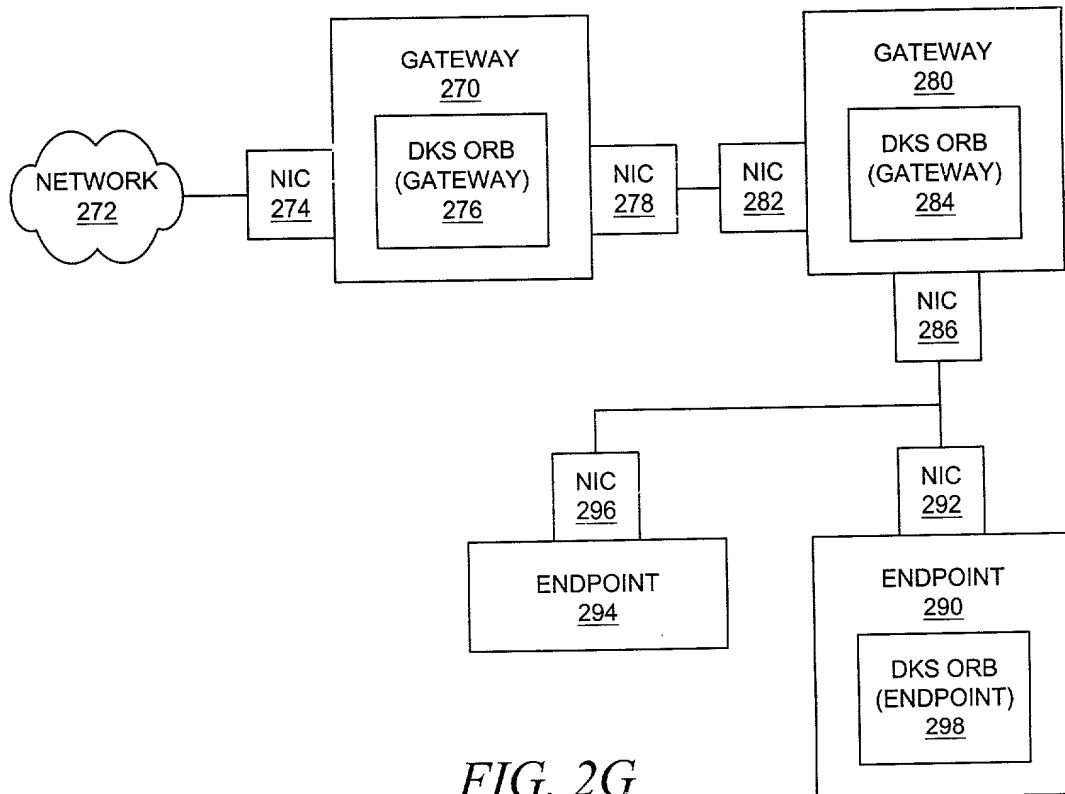


FIG. 2G

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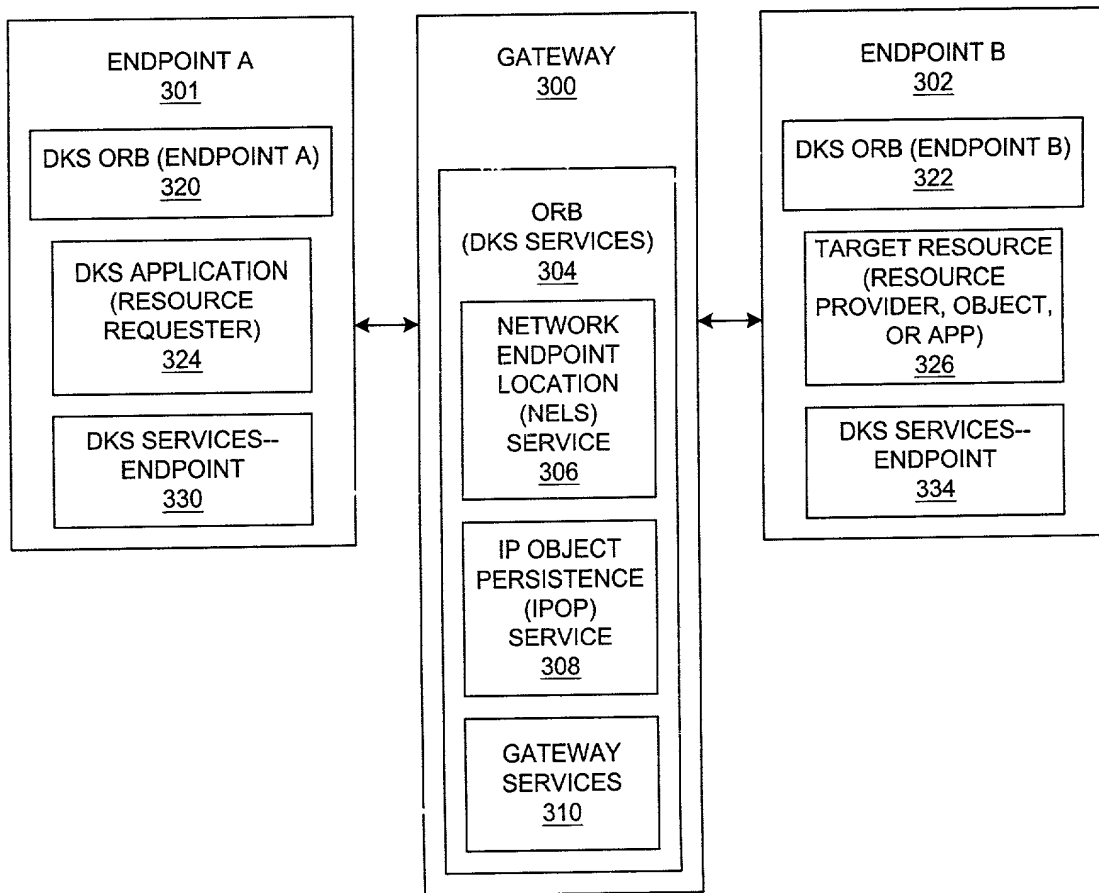


FIG. 3

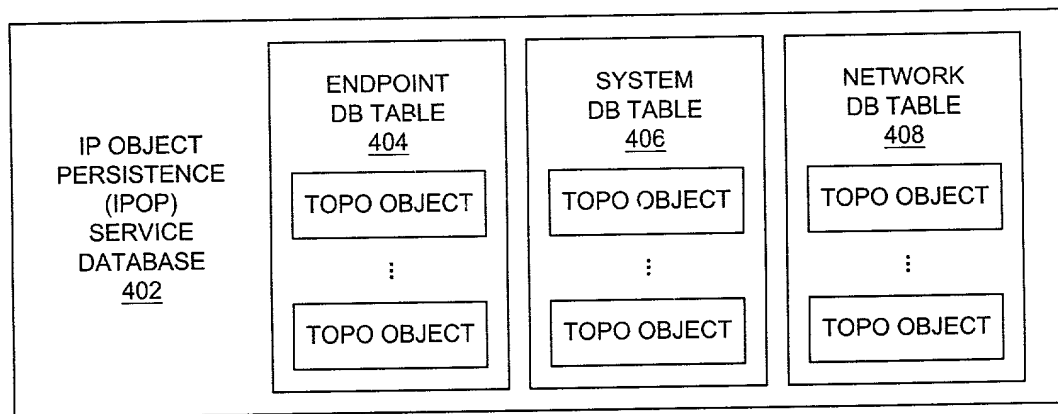
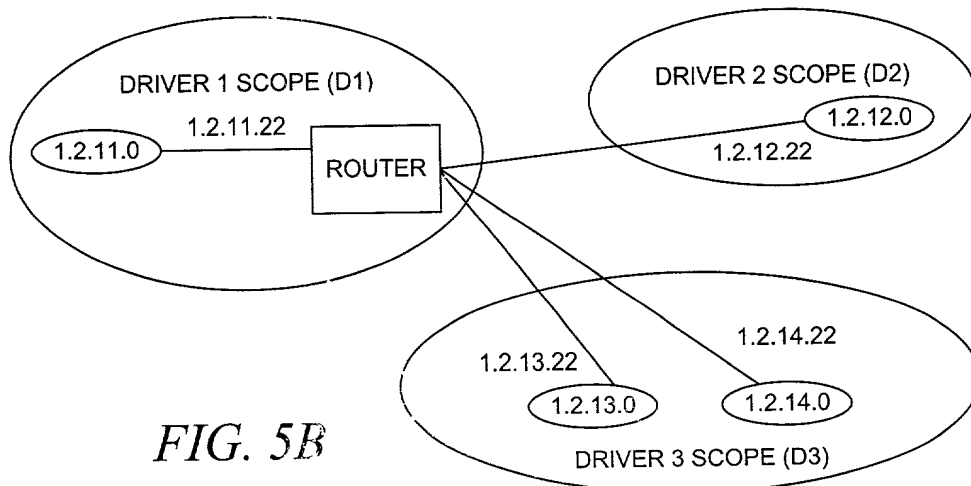
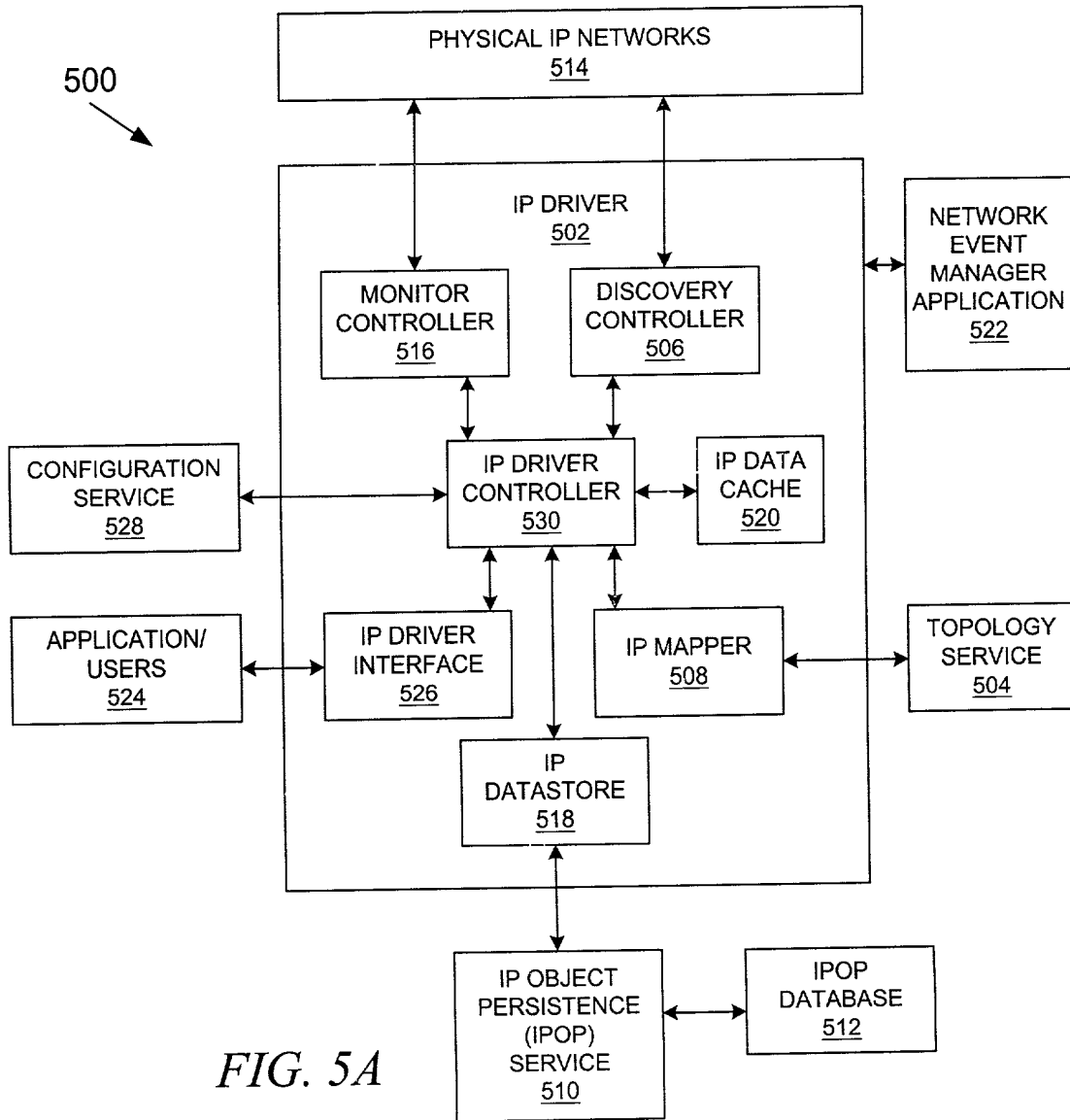


FIG. 4

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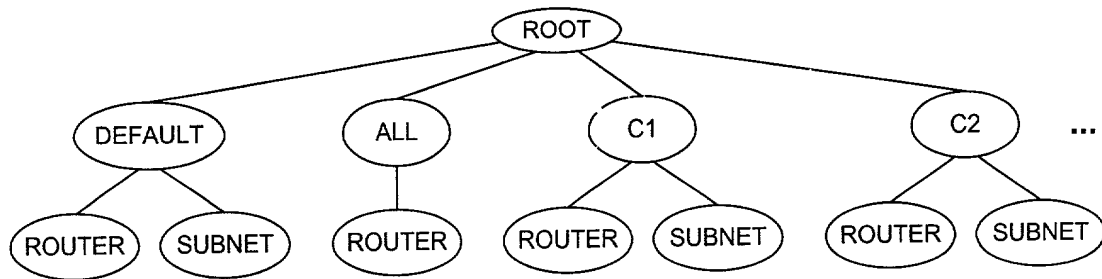


FIG. 5C

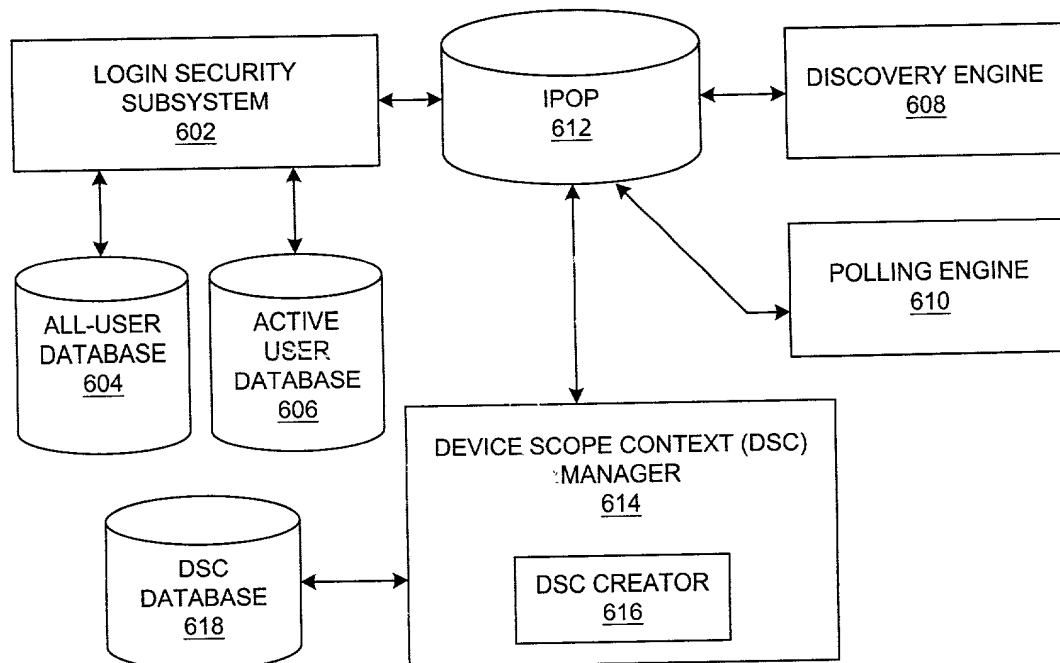


FIG. 6

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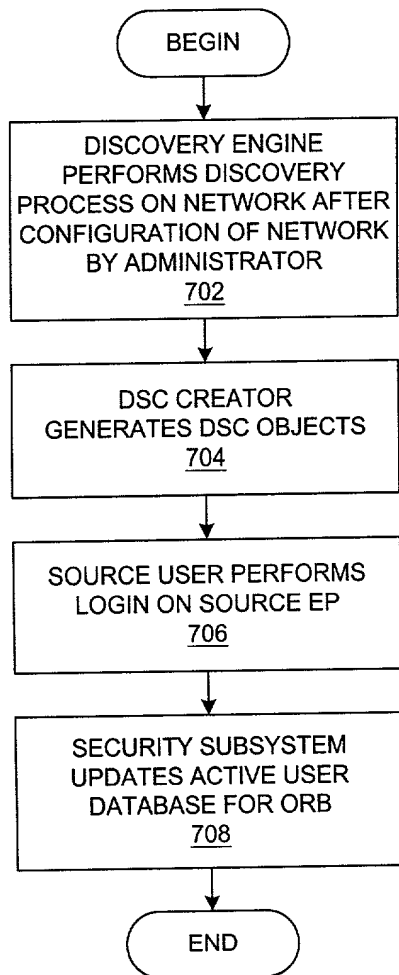


FIG. 7A

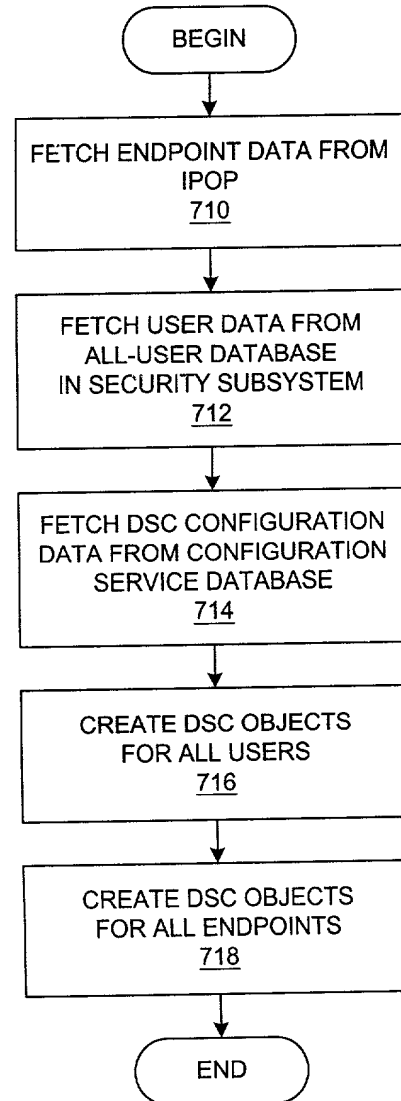


FIG. 7B



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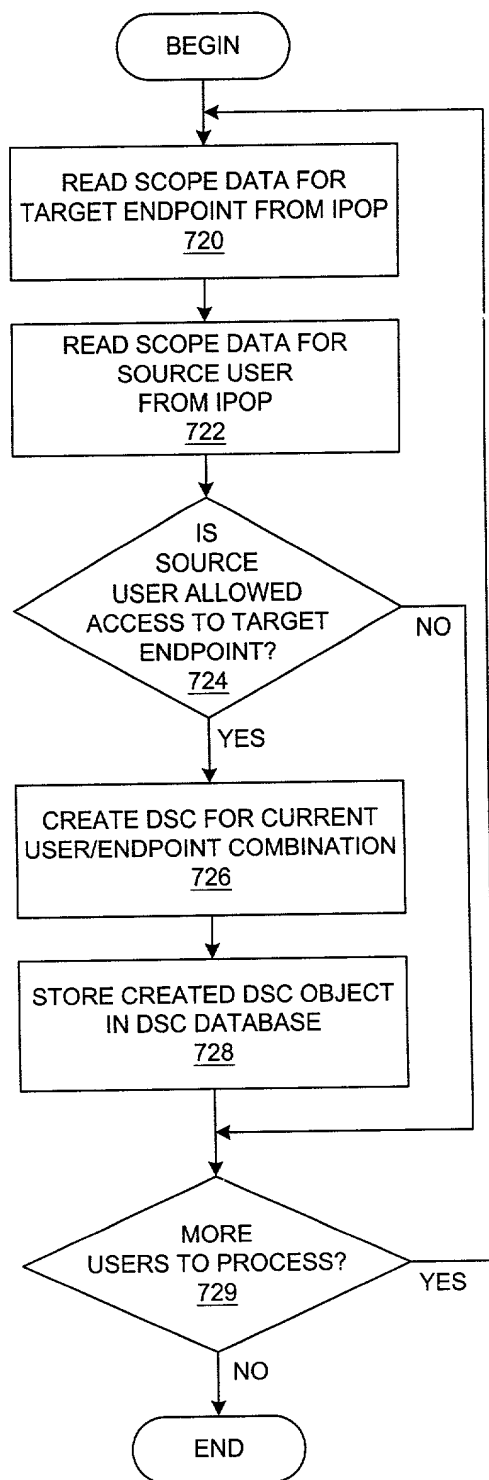


FIG. 7C

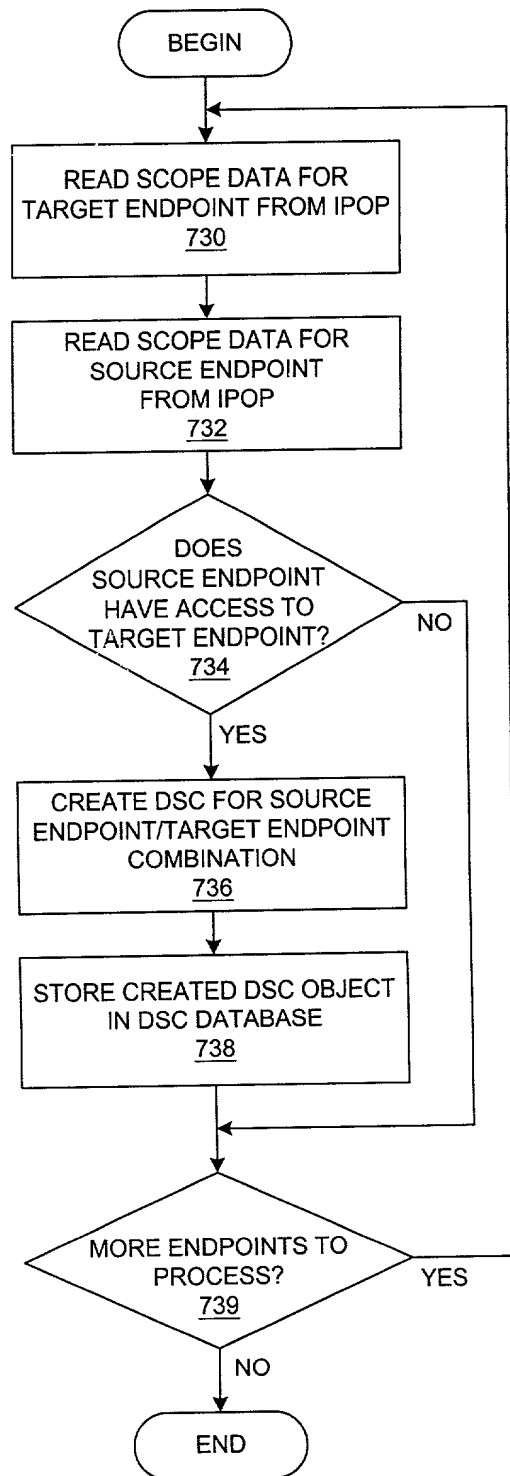


FIG. 7D

Method and system for managing resources using geographic location information  
within a network management framework

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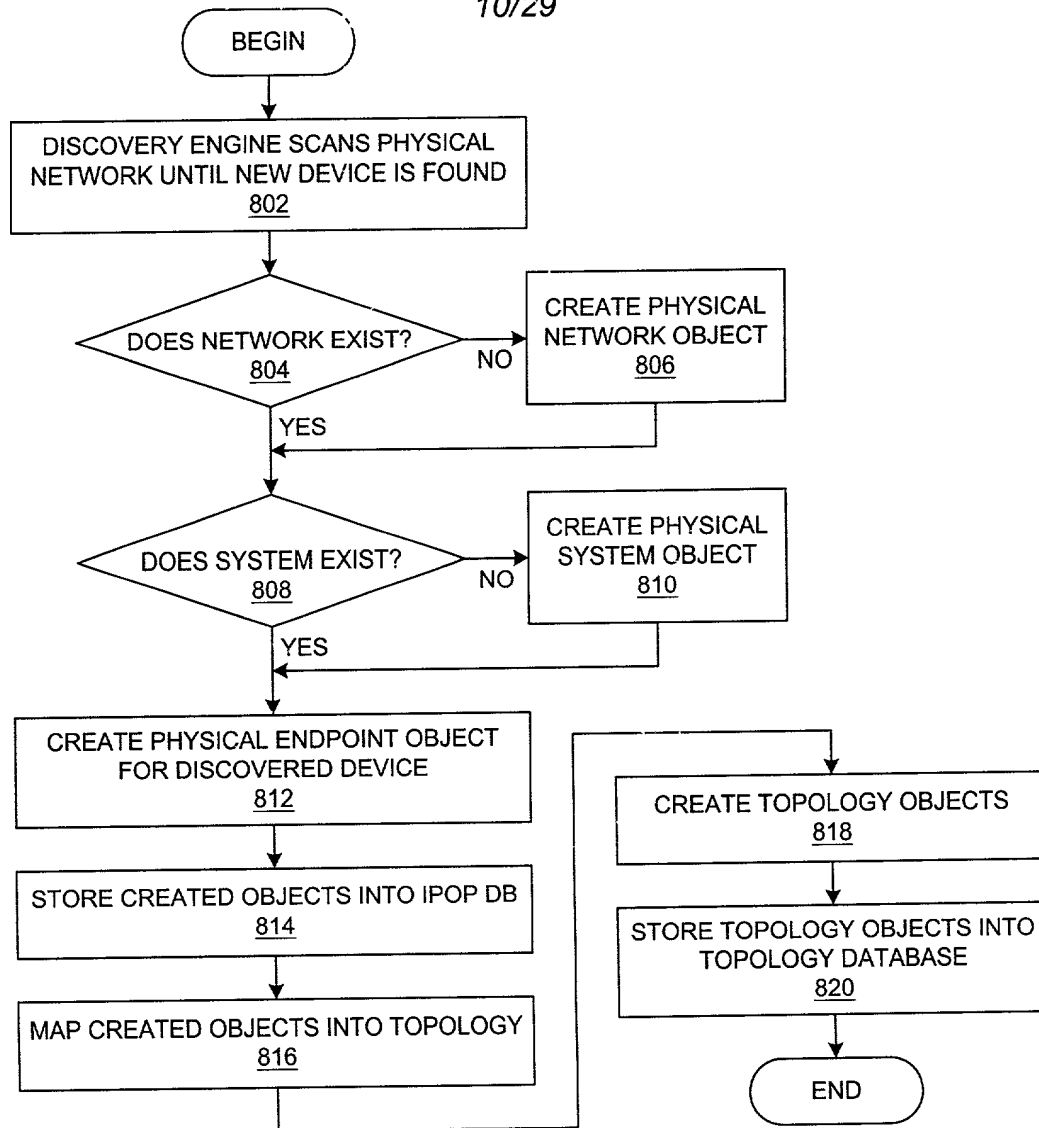


FIG. 8A

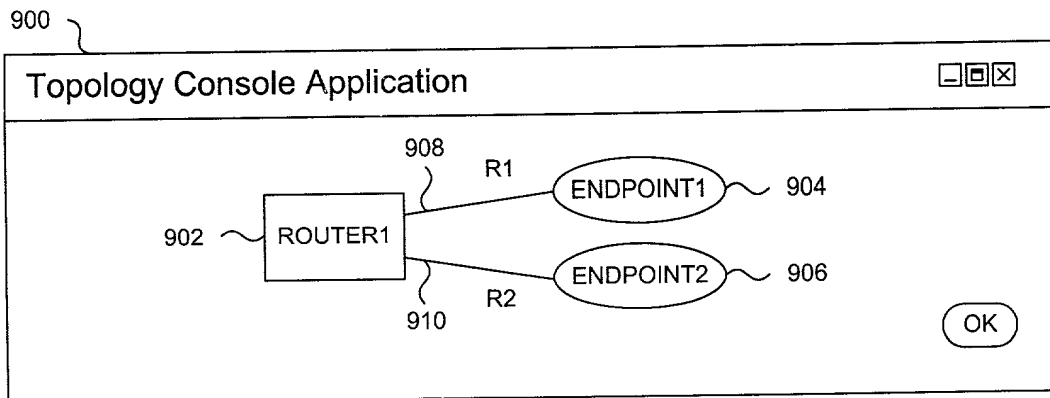


FIG. 9A

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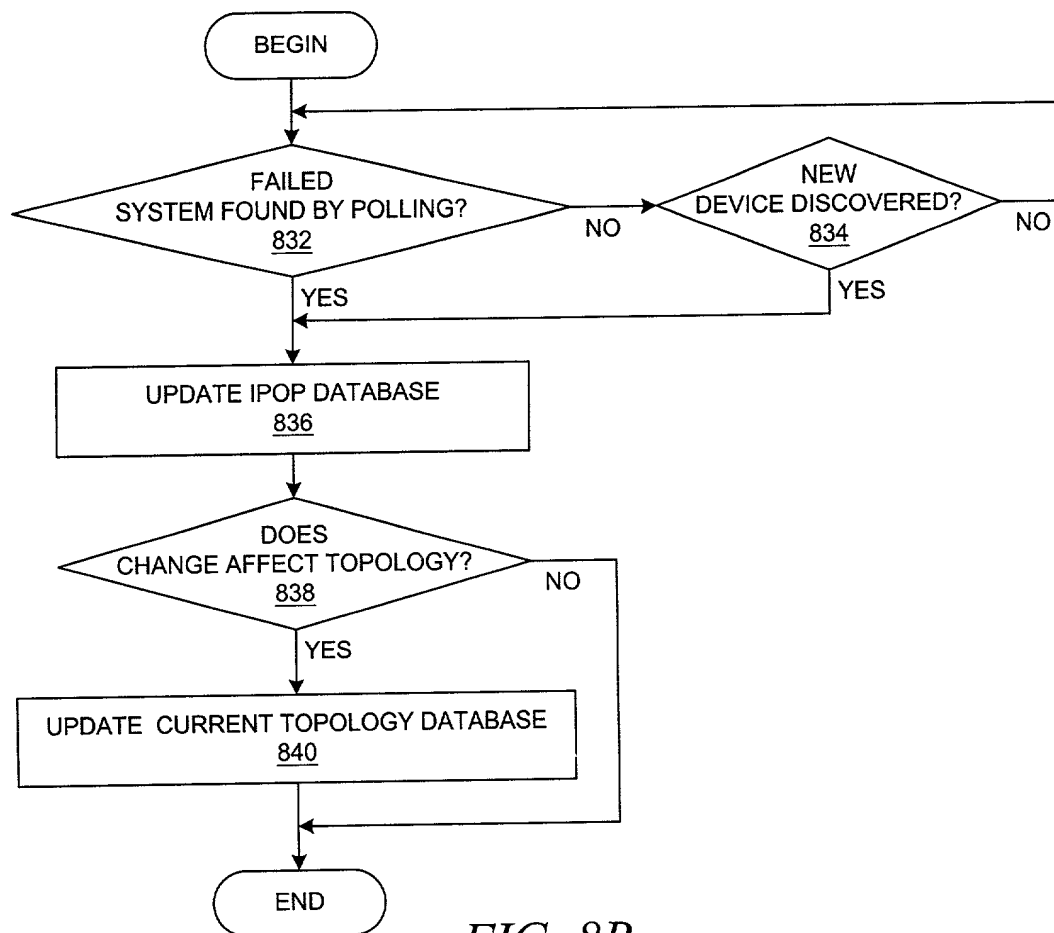


FIG. 8B

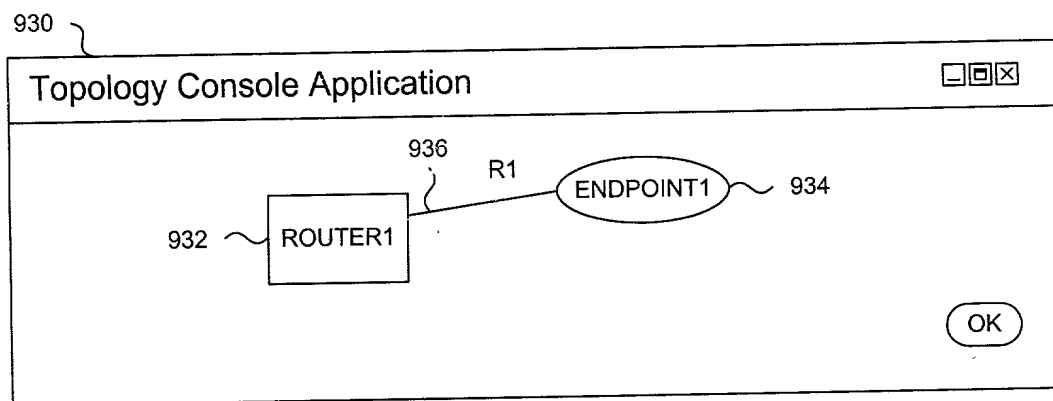


FIG. 9B

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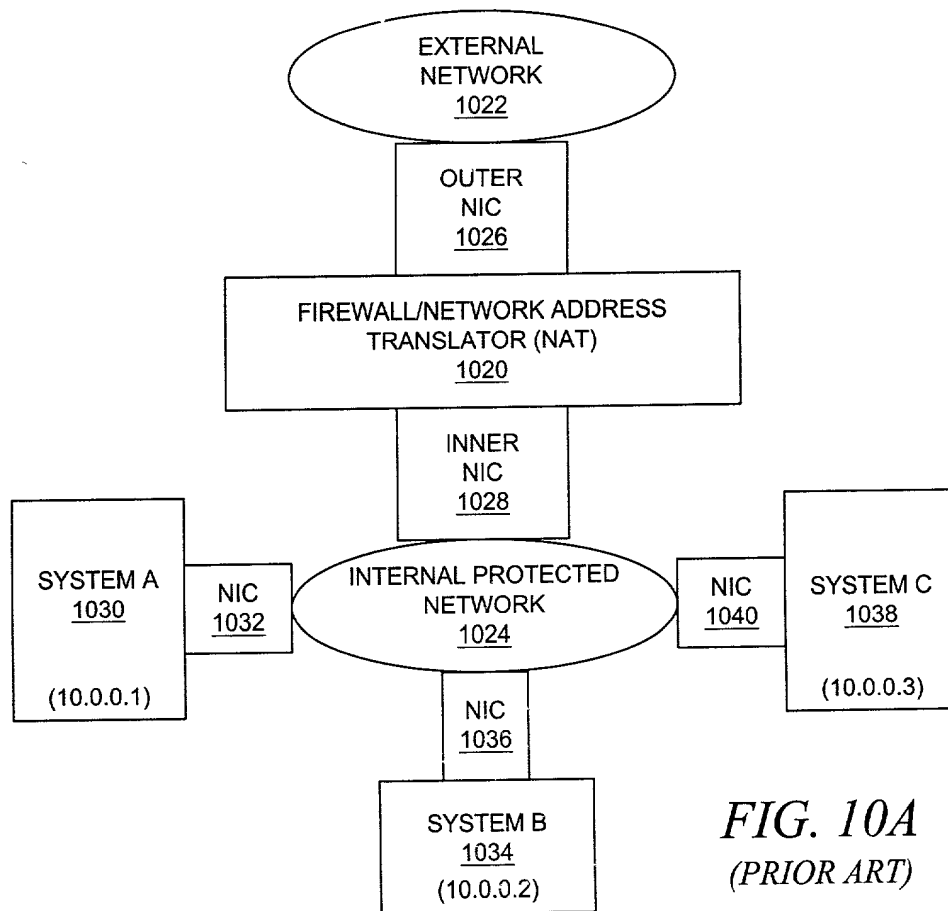


FIG. 10A  
(PRIOR ART)

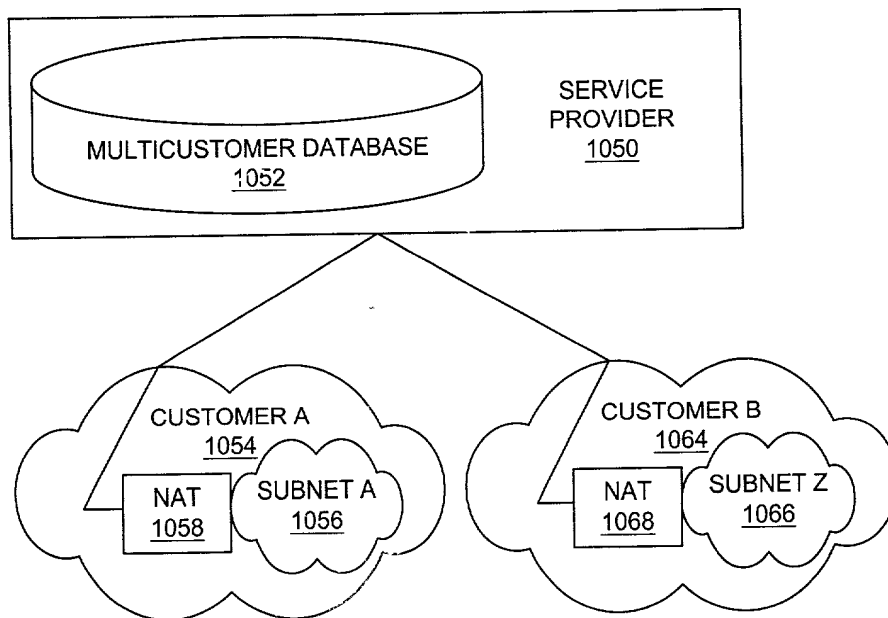


FIG. 10B

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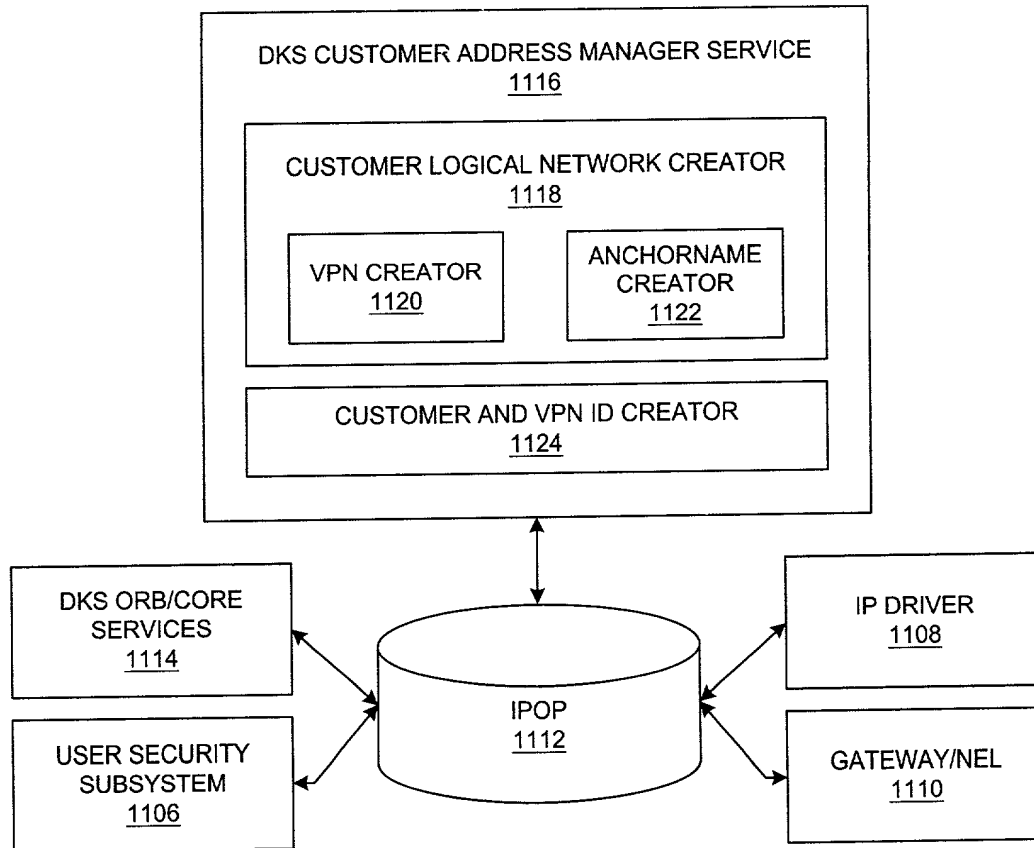


FIG. 11A

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Network Management Application

NETWORKS REQUIRING VPN CREATION--DUPLICATE ADDRESSES EXIST

PHYSICAL NETWORK ADDRESS: 10.7.205.103 ~ 1352  
CUSTOMER ANCHORNAME: AUSTINBLDG1 ~ 1356  
VPN ID:  ~ 1370

PHYSICAL NETWORK ADDRESS: 10.7.205.103 ~ 1354  
CUSTOMER ANCHORNAME: AUSTINBLDG2 ~ 1358  
VPN ID:  ~ 1372

1378 ~ ☒ CHANGE VPN ID FOR ENTIRE SCOPE

SET ~ 1374 1376 ~ CLEAR

FIG. 13

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Public Class IPActionObject {

Endpoint sourceEP;  
Endpoint targetEP;

// CONSTRUCTOR

IPActionObject( Endpoint targetEP, Endpoint sourceEP ) {

.  
.  
.  
}

VOID performAction( ) // EXECUTES ACTION METHOD

.  
.  
.  
}

*FIG. 11B*

Public Class Endpoint {

// public variables

long EObjectID; // ID to object (both private and public network addresses)  
InetAddress EIPAddress; // physical network address (private or public)  
long EPVPN; // virtual private network ID

//get/set of variables

public long getObjectID( ) { ... }  
public InetAddress getAddress( ) { ... }  
public long getVPN( ) { ... }

}

*FIG. 11C*

Public Class EndpointCustomer extends Endpoint {

public getVPNGW( ) {

//gets the only gateway which has access to a particular private network

.  
.  
.  
}

//private variables only set/accessed by EP creator IPOP

long customerHashNumber;  
String customerName;  
String customerAnchorPath;  
Long objectIDPrivateGatewayRoute

}

*FIG. 11D*

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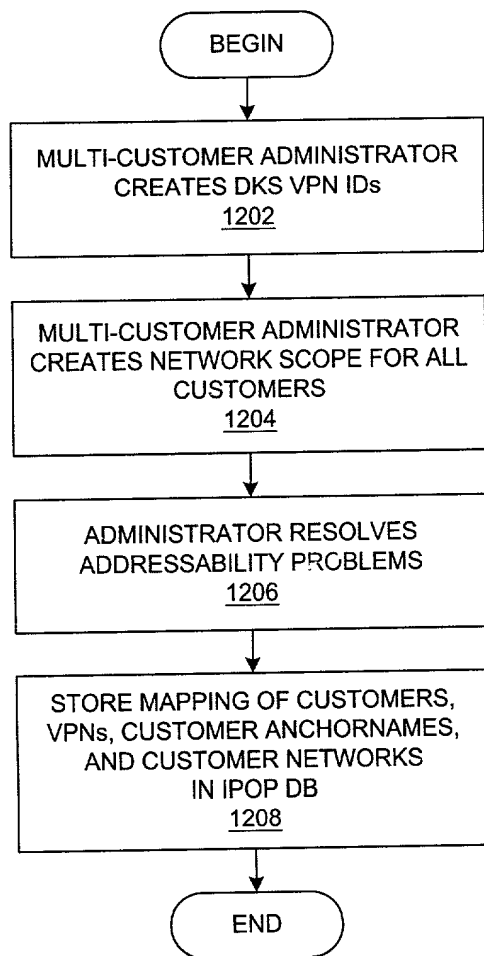


FIG. 12A

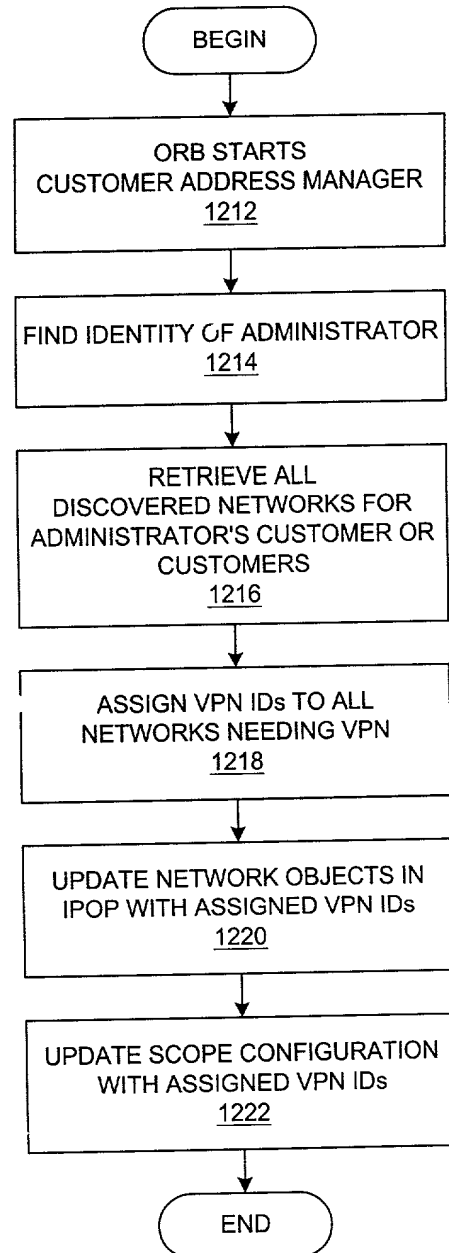


FIG. 12B

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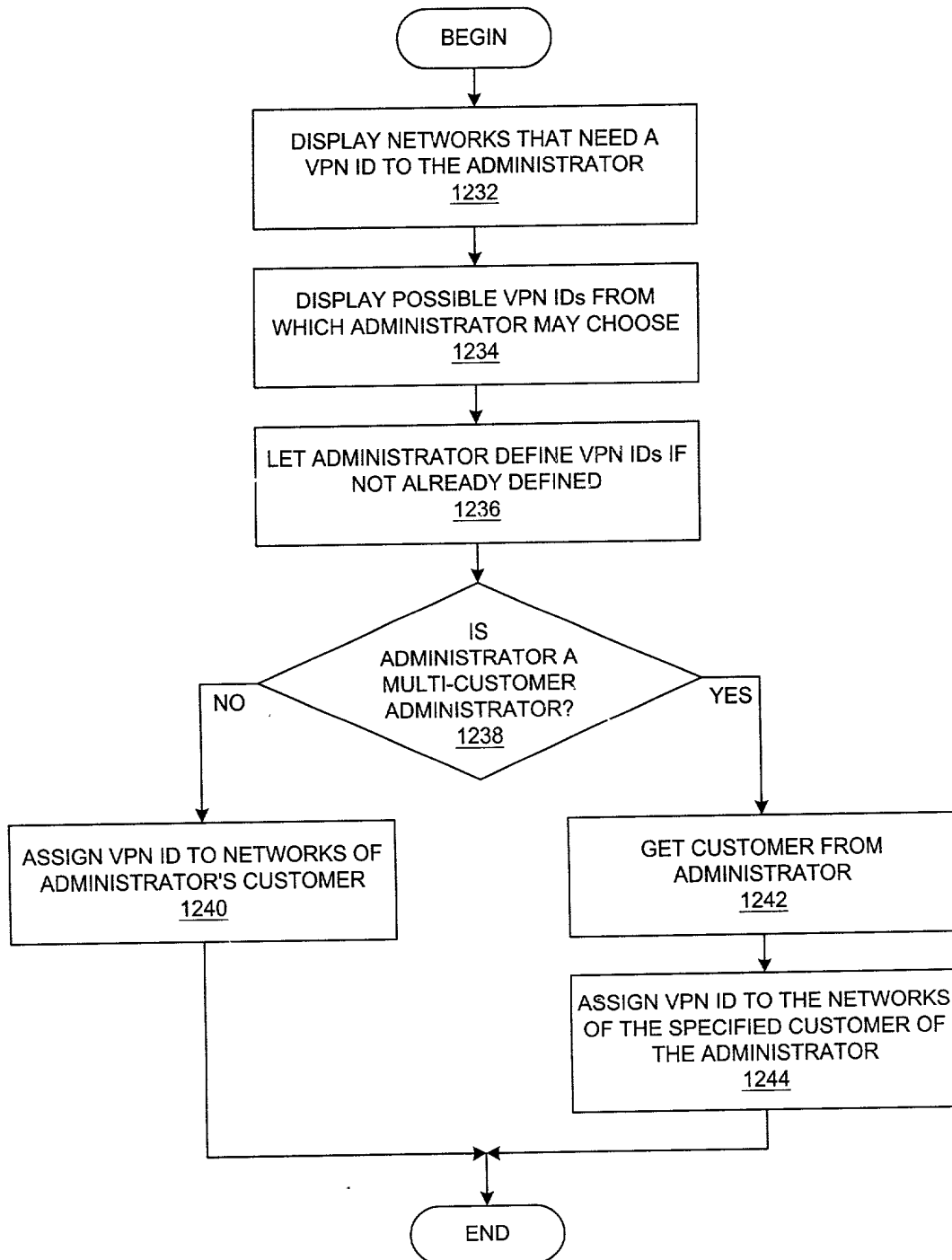
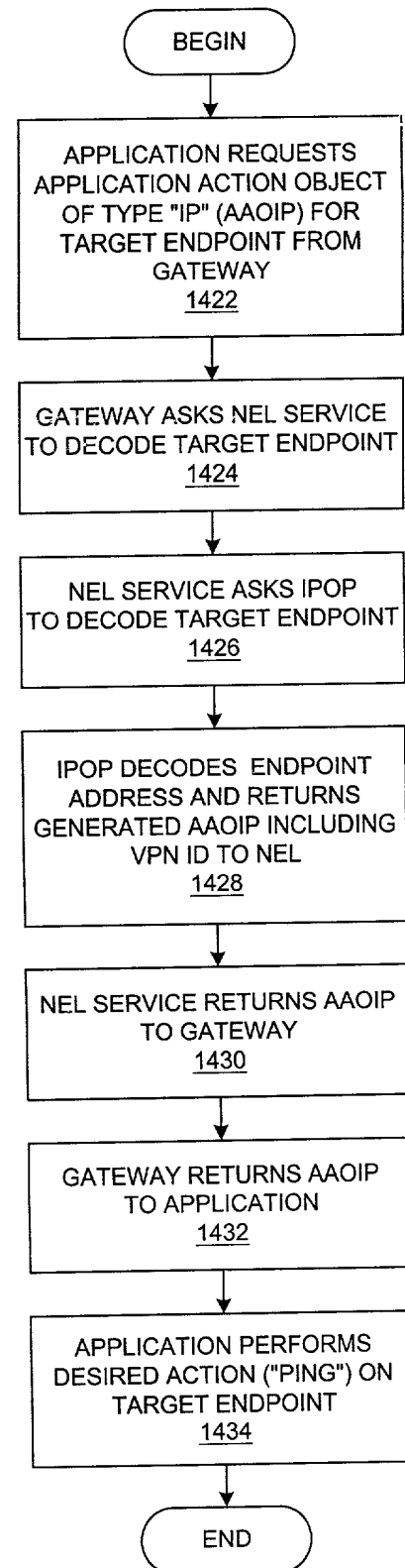
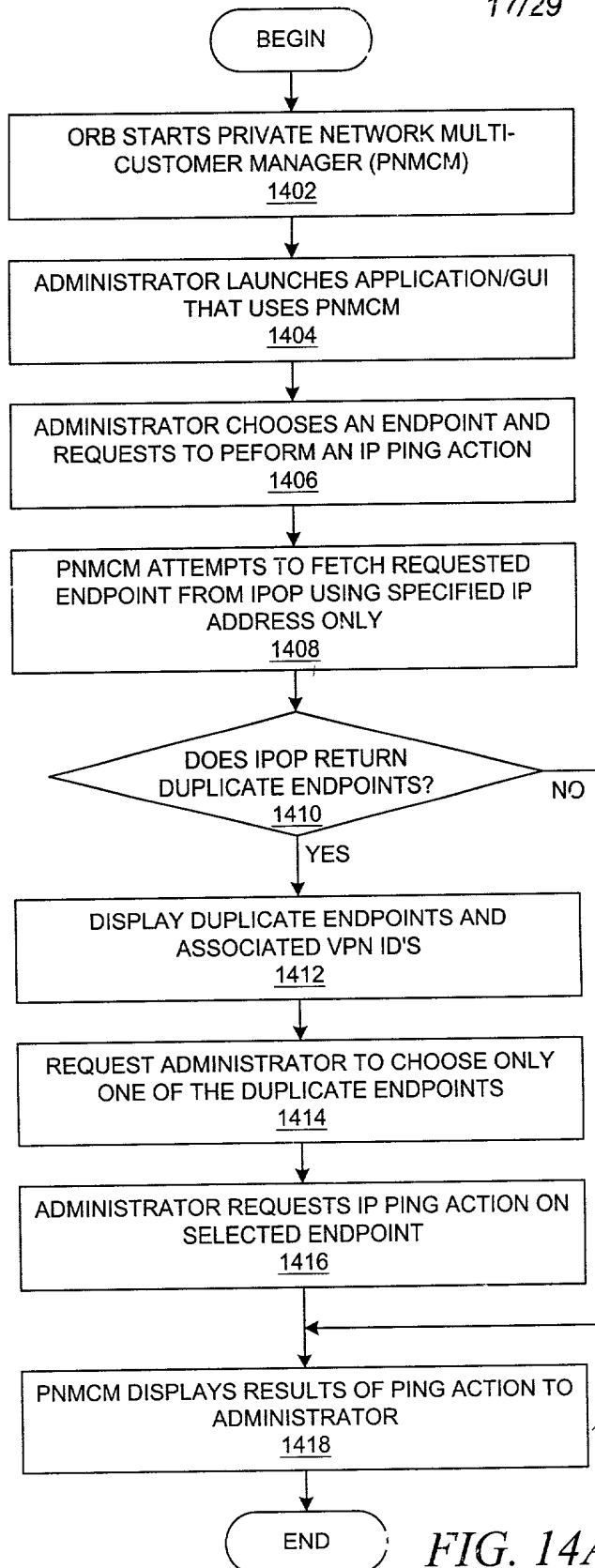


FIG. 12C



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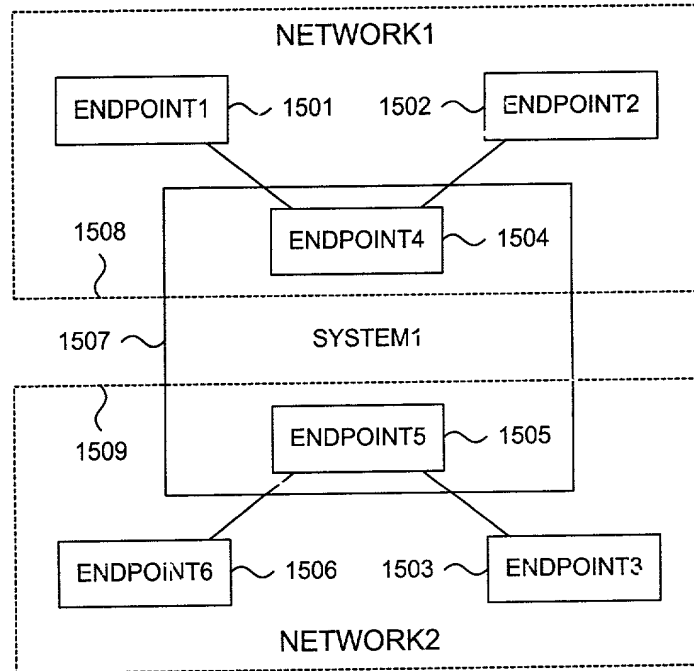


FIG. 15

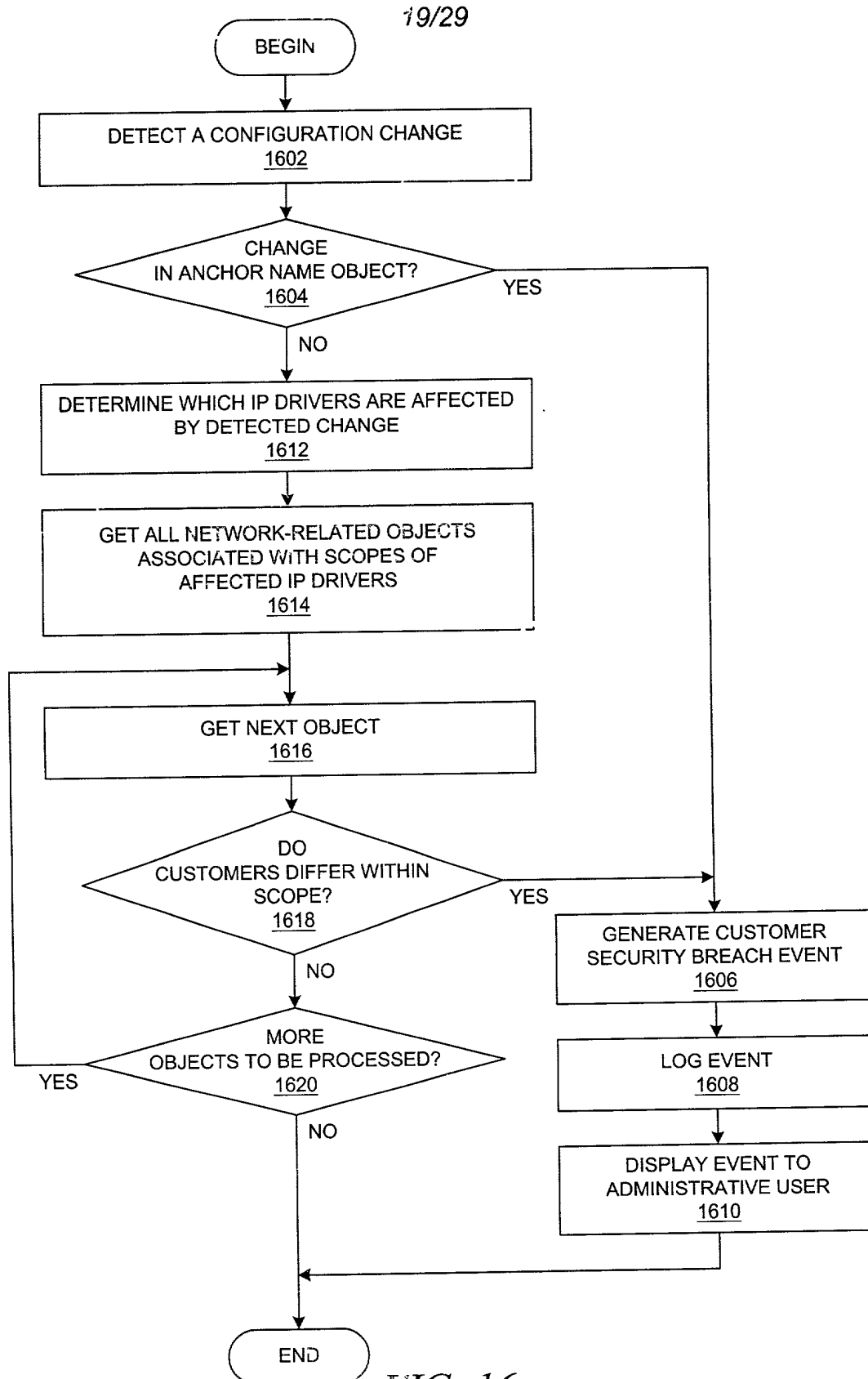
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FIG. 16

## Method and system for managing resources using geographic location information within a network management framework

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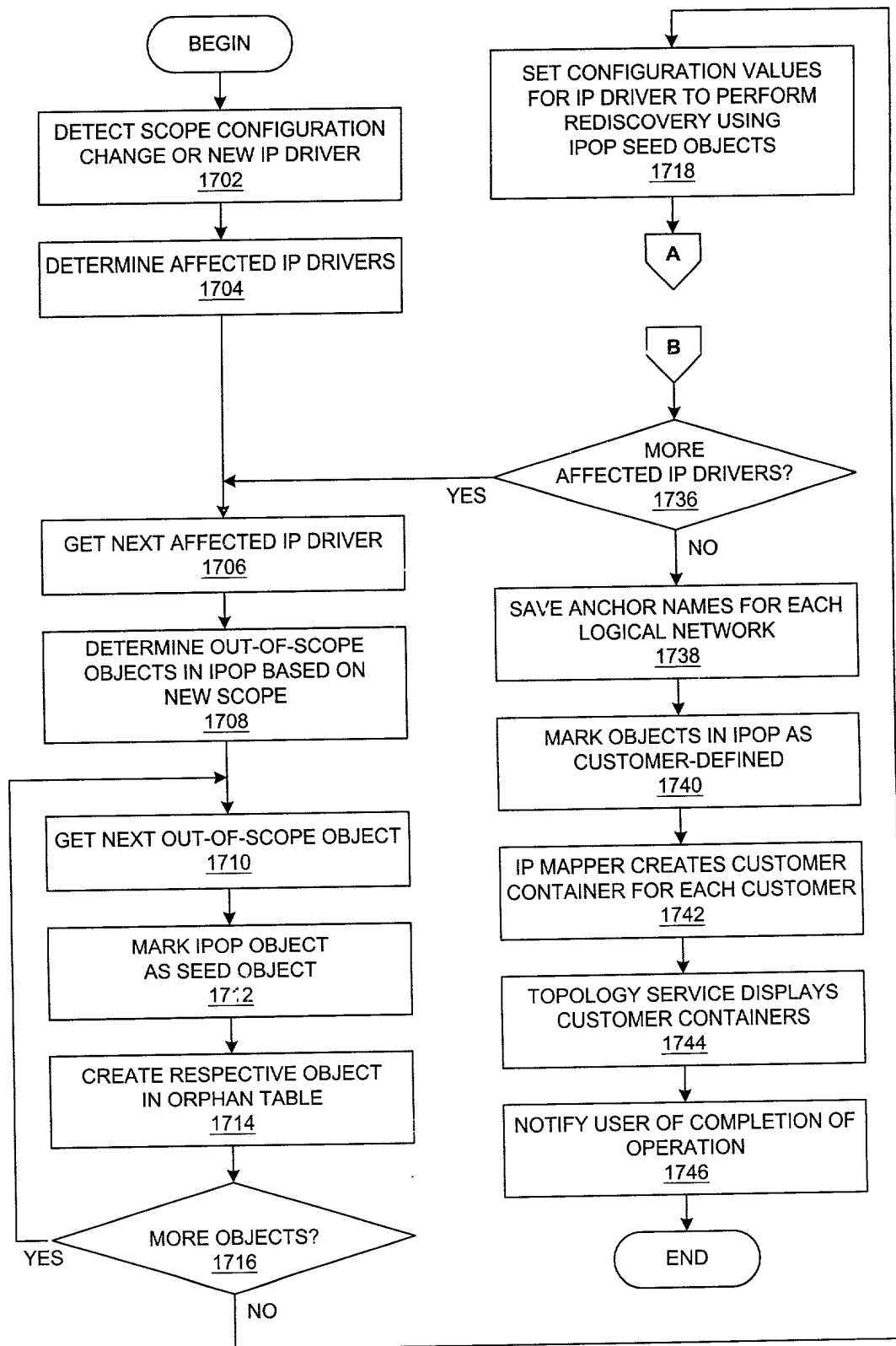


FIG. 17A

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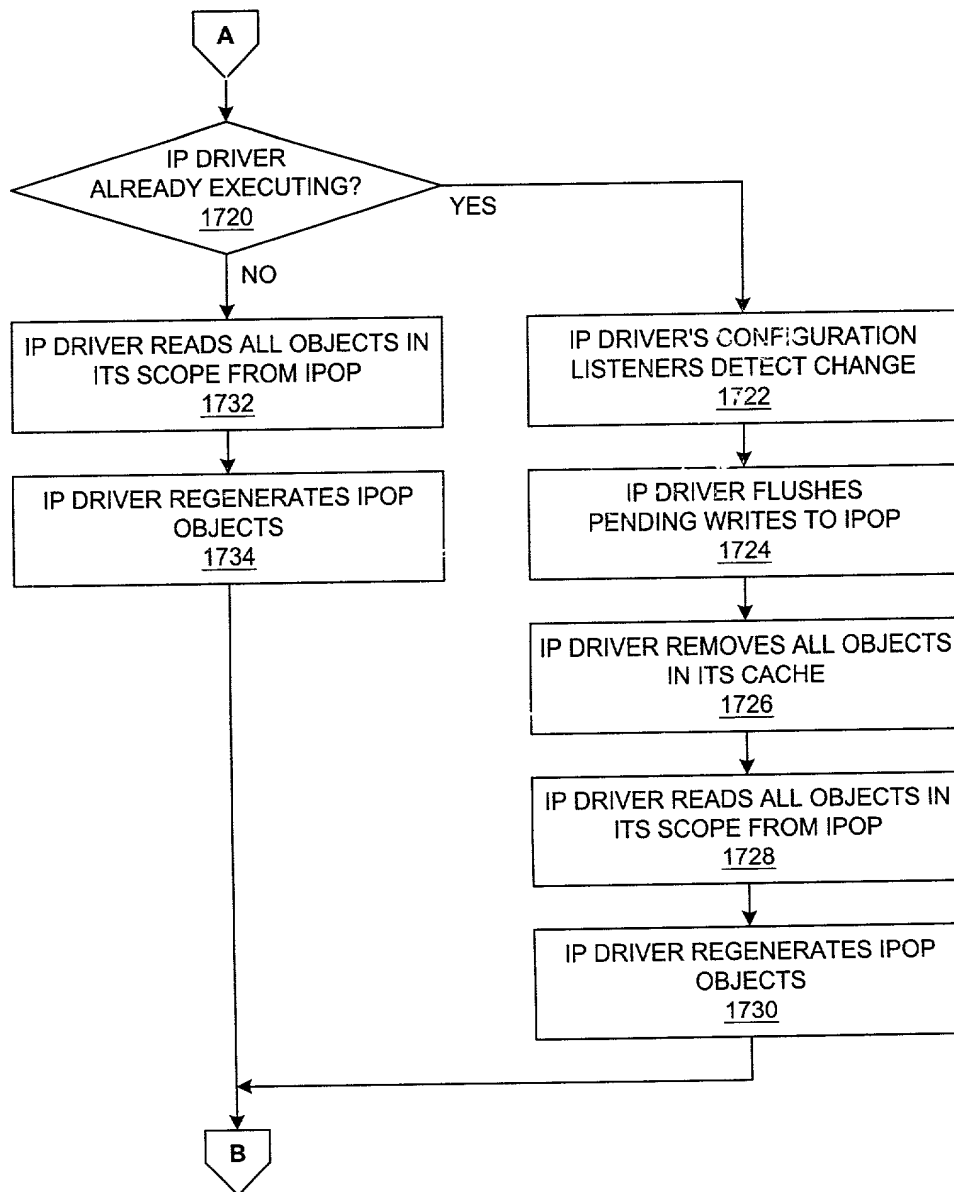


FIG. 17B

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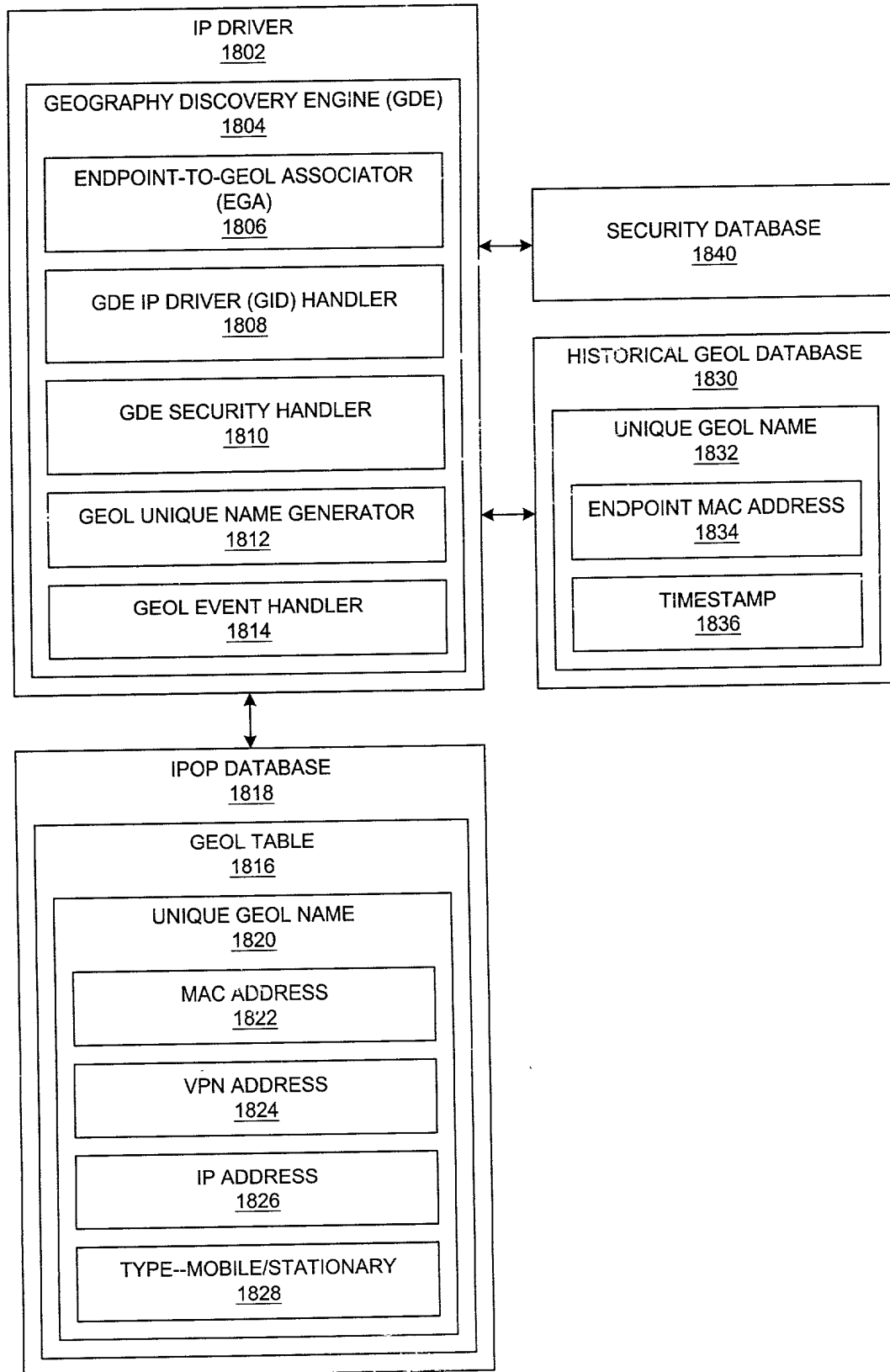


FIG. 18

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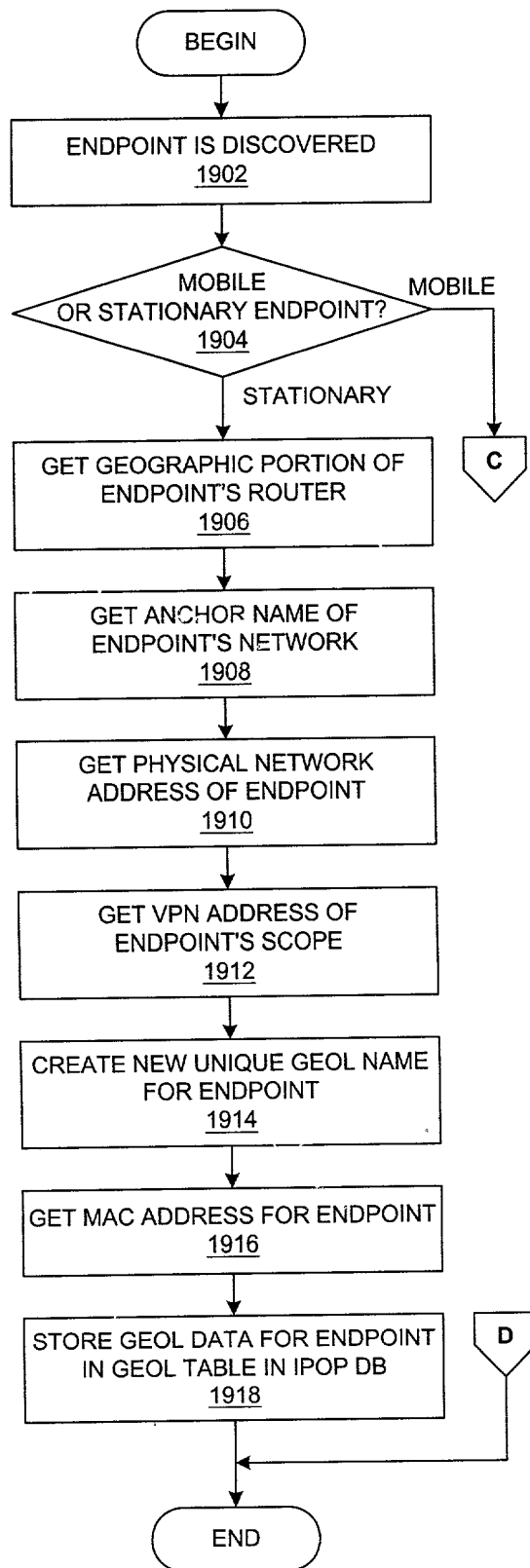


FIG. 19A

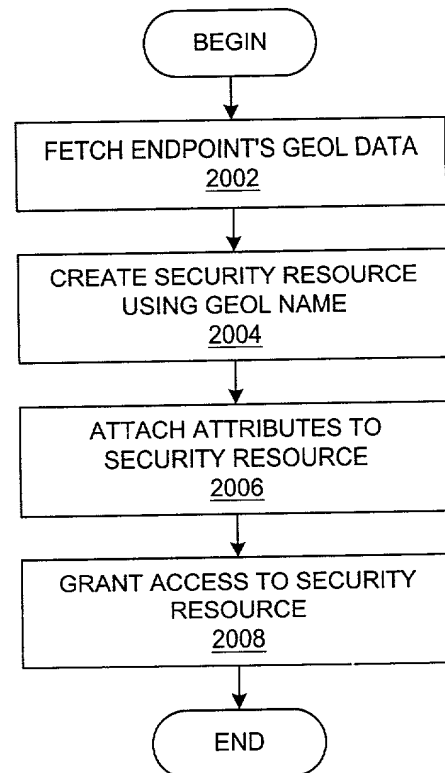


FIG. 20

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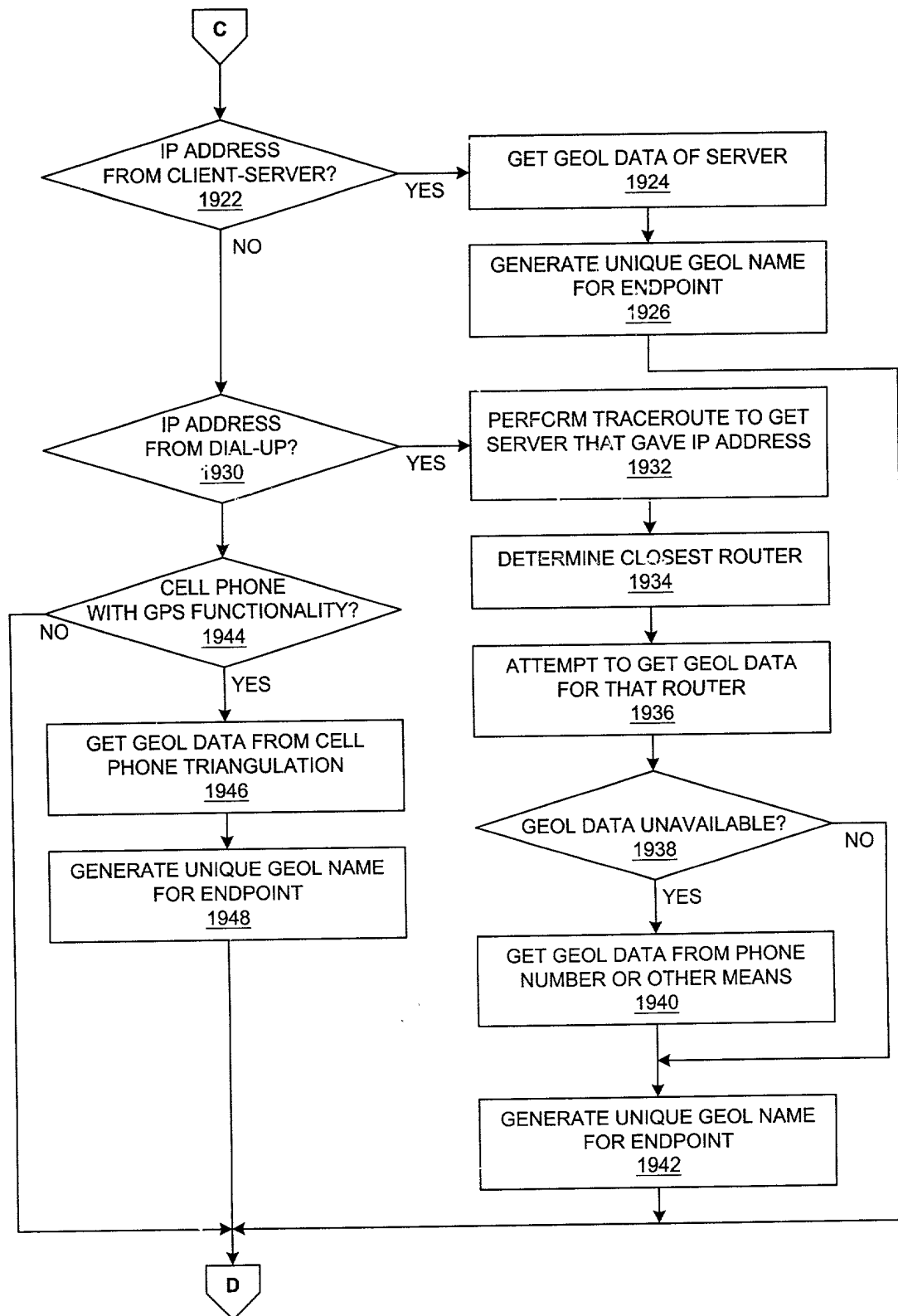


FIG. 19B



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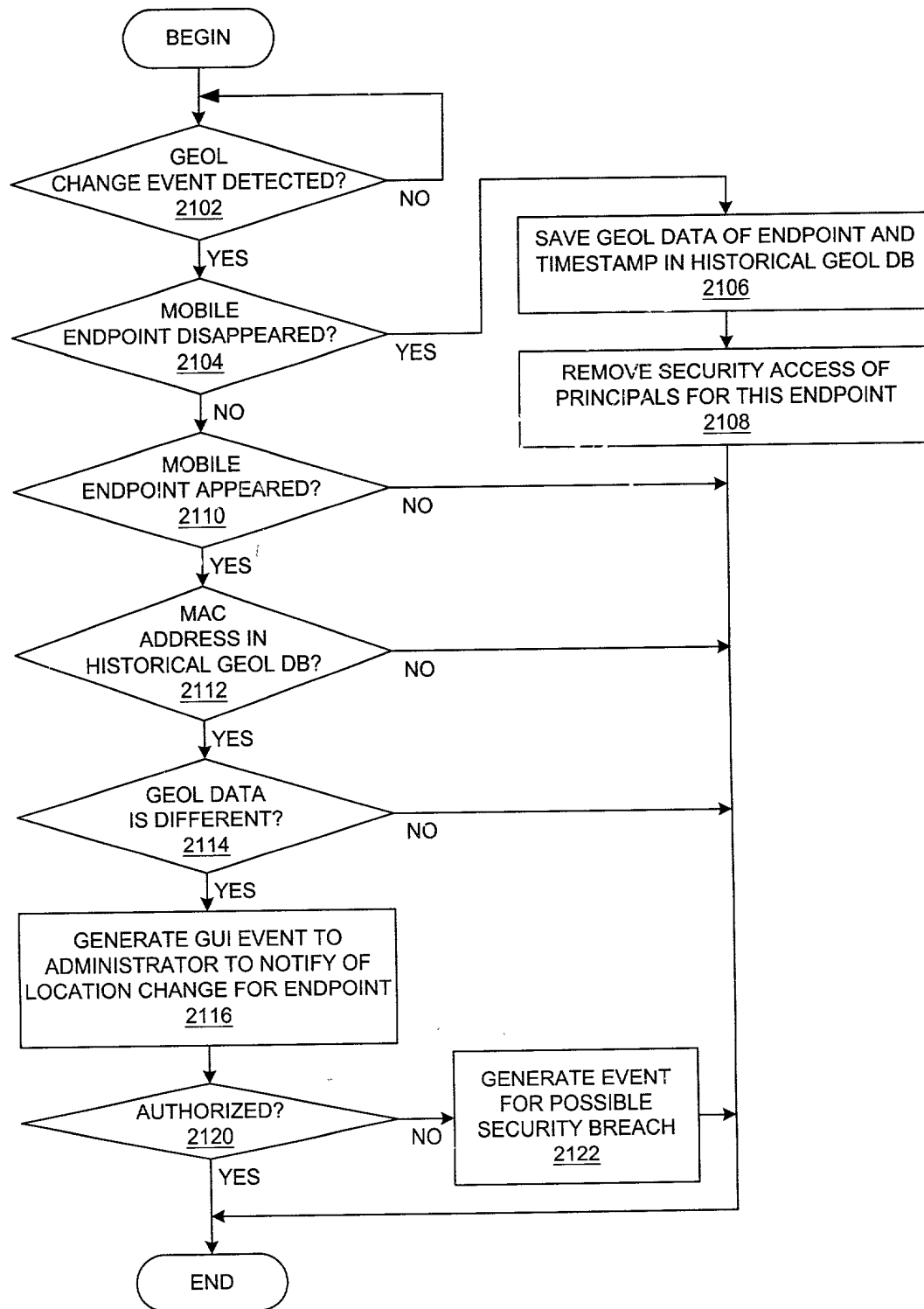


FIG. 21

## Method and system for managing resources using geographic location information within a network management framework

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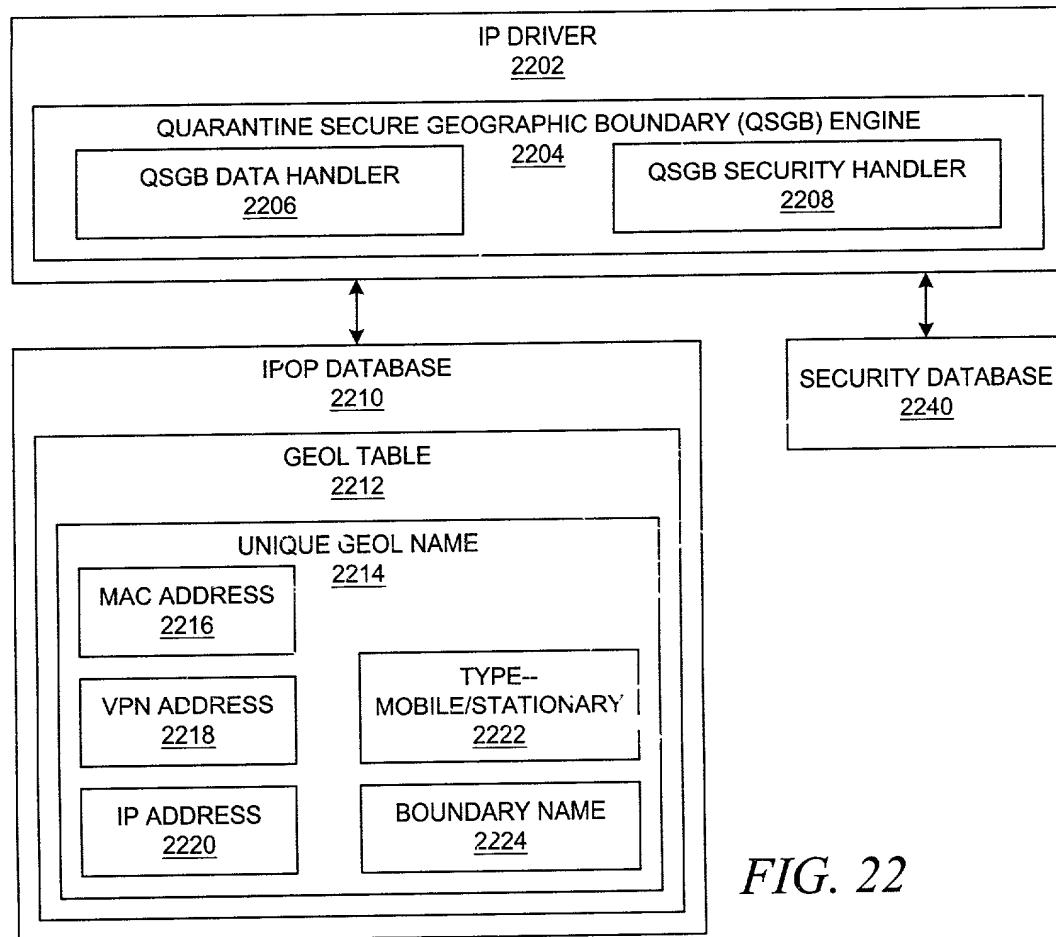


FIG. 22

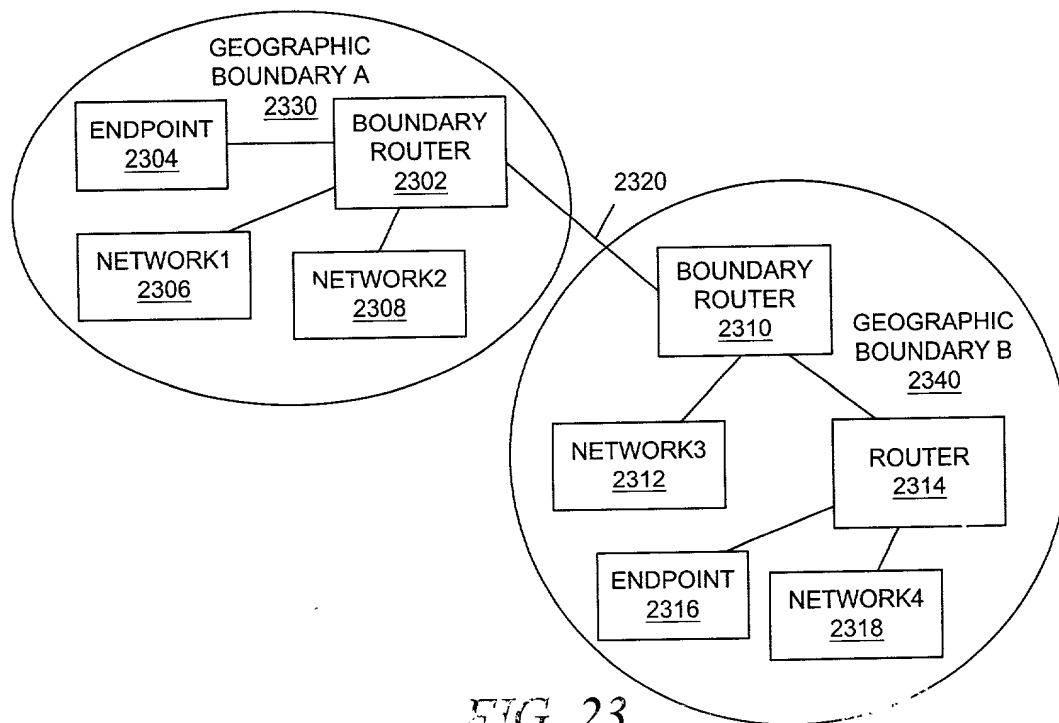


FIG. 23

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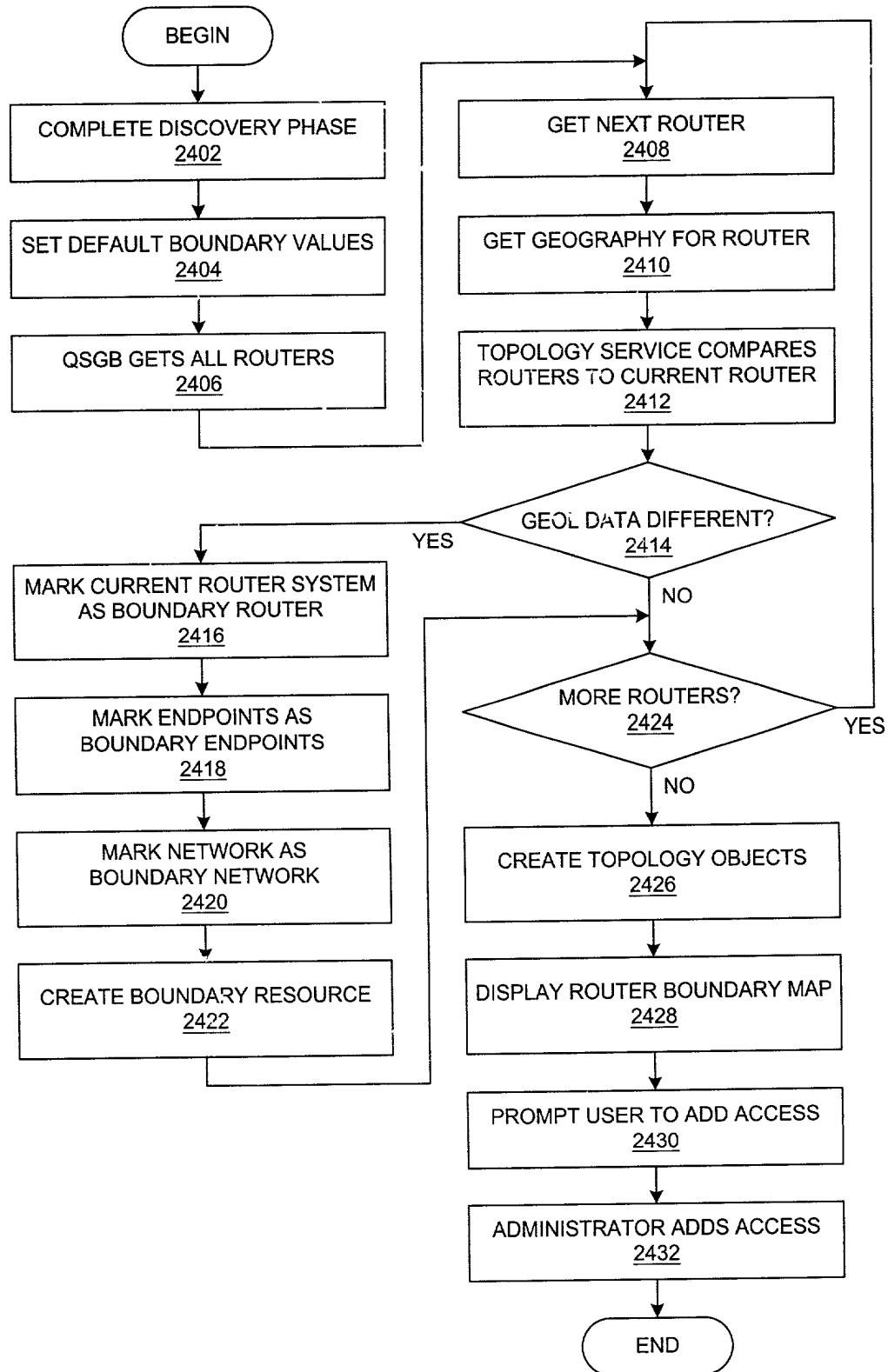


FIG. 24

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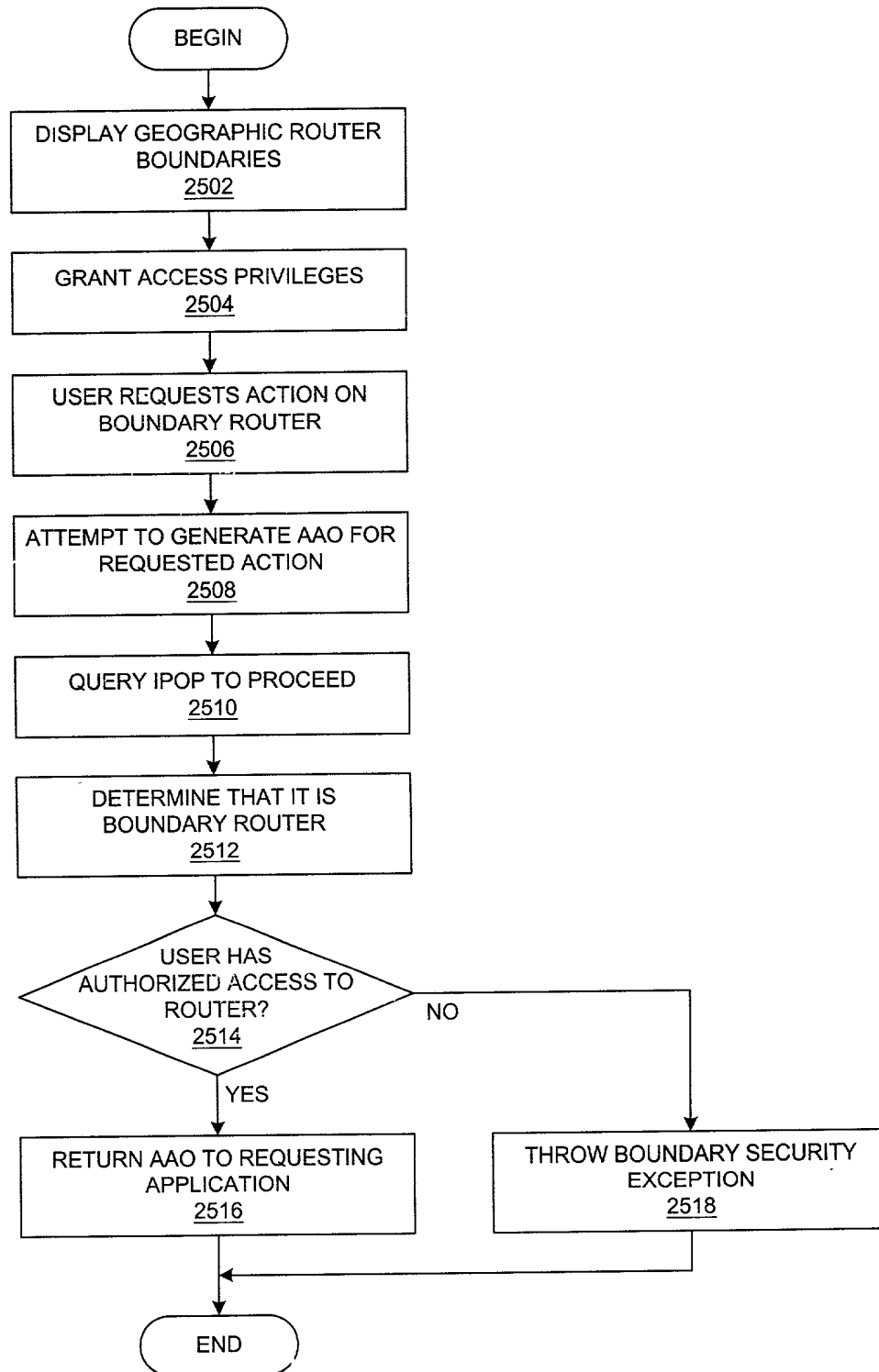


FIG. 25

## Method and system for managing resources using geographic location information within a network management framework

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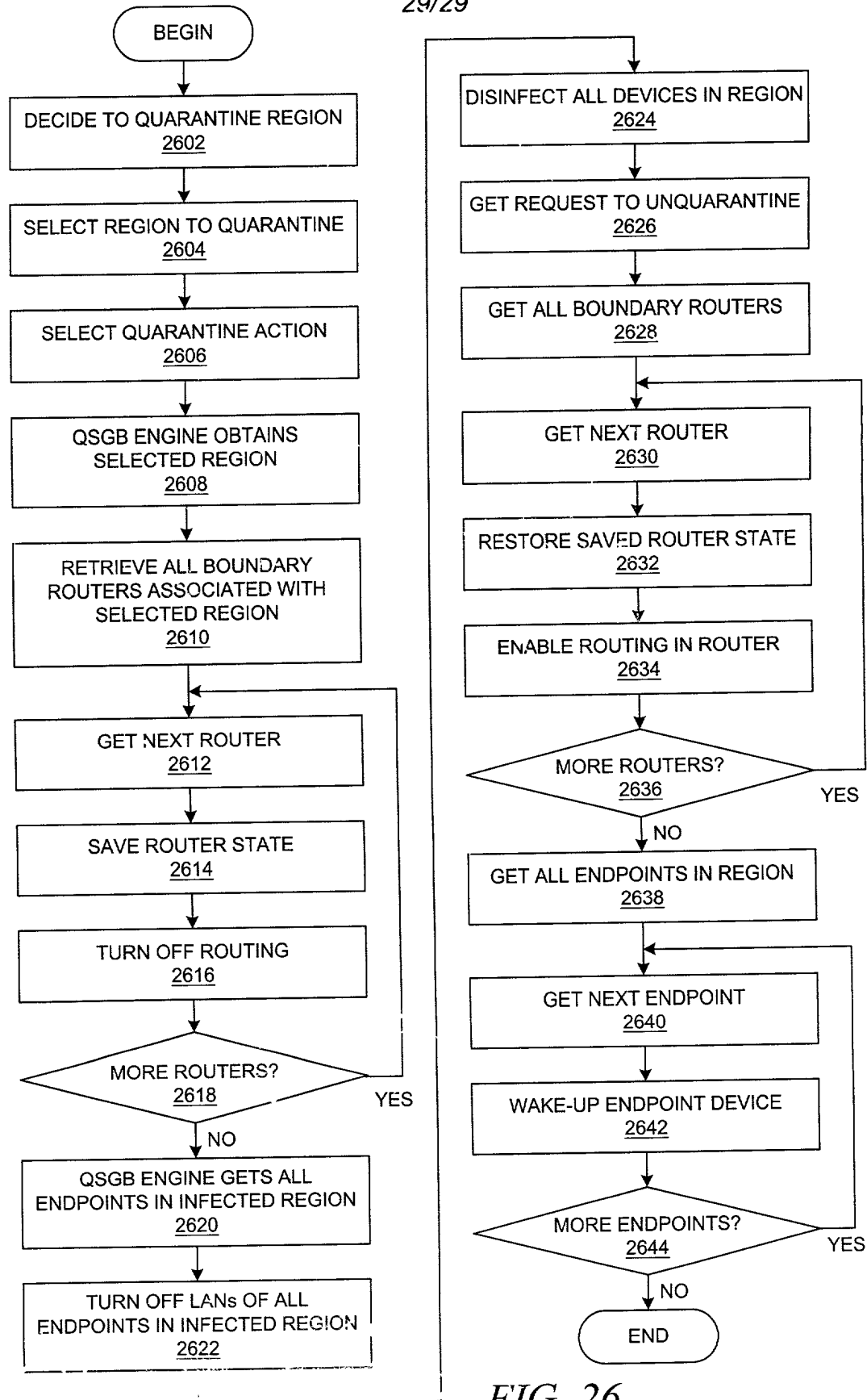


FIG. 26